SAMSO-TR-76-177

ADA 028045



# GENERAL DYNAMICS

Convair Division

CHI

A2136-1 (REV. 5-65)

HYDRAULIC SYSTEM

AIRBORNE

DIFFICULTIES REVIEW

fr

Issue Date: 15 August 1966 GENERAL DYNAMICS SAMSO Convair Division GDC-BRW66-\$13-Ex-0-Vol-DIFFICULTIES REVIEW ATLAS BOOSTER AIRBORNE AND GROUND SUPPORT SYSTEMS . воок п. GENERAL INFORMATION. Volume VII. Hydraulic System Airborne Difficulties Review. CONTRACT AF/04(695)-71/6 Weite Section Sull Section |

Approved by

1

B. B. Shaffer

Chief of reliability Engineering

14765)

### BOOK II - DIFFICULTIES REVIEW - AIRBORNE CONTAINS THE FOLLOWING VOLUMES

VOLUME I AIRFRAMES

\*VOLUME H ABORT SENSING AND IMPLEMENTATION SYSTEM

VOLUME III AUTOPILOT

\*VOLUME IV AUXILIARY POWER SOURCE

**VOLUME V** 

ELECTRICAL

\*VOLUME VI GUIDANCE

VOLUME VII HYDRAULICS \_\_\_\_

VOLUME VIII INSTRUMENTATION

VOLUME IX PNEUMATICS

VOLUME X

PROPELLANT UTILIZATION

VOLUME XI PROPULSION INTERFACE

VOLUME XII PROPULSION

VOLUME XIII RANGE SAFETY COMMAND

\*VOLUMES II, IV AND VI UNDER ONE COVER.

### GENERAL INFORMATION

The Difficulties Review encompasses problems gathered from the factory, the field, (ETR and WTR) and UTP. The factory difficulties are limited to "selloff" and rerun composite testing.

In the UTP area, the difficulties were excerpted from Central Test Control Reports, Problem Reports, Supplementary History Sheets and Problem Review Reports.

Field problems for the Difficulties Review have been limited to captive flights, flight readiness firings, actual countdown dual propellant loading, quad tanking, component reliability testing, and flight acceptance composite tests. Difficulties called out in the search for critical weakness program was not documented.

GSE problems shall be limited to ETR Complex 12. 13. 36A and 36B for the present edition. Hereafter only booster difficulties shall be maintained.

Failure analysis reports cover difficulties from the field and factory and may complement the information above.

The GSE Difficulties Review, Book 1 contains 14 Volumes, one volume for each system, under one cover. Each volume is appropriately indexed.

The Airborne Difficulties Review, Book 2 contains 13 volumes. Each volume is under separate cover except Volumes II, IV and VI. Volumes II, IV, and VI are under one cover because of the limited material contained in each volume. All volumes are appropriately indexed.

A guide to facilitate interpretation of data in the Difficulties Review (GSE and Airborne) is part of each book or volume.

### DIFFICULTIES REVIEW-HYDRAULIC SYSTEM AIRBORNE

INDEX --

Contest: -

-	_			
•	TITLE	ATTTTO	C## #1037C 71113 #C!	
	HYIJK	AULIC	SUBSYSTEMS -	

PAGE(S)

L. Booster ;

0001 - 0135

II. Sustainor/Vernier

0136 - 0307

III. Vernier Solo

0307 - 0318

I. BOOSTER

Accumulators

**0013, 0014, 0016, 0021, 0023, 0030, 0034,** 

0040, 0056, 0058, 0059, 0061, 0064, 0069,

0072, 0076, 0077, 0084, 0086, 0091, 0093,

0096-0100, 0104, 0106, 0110, 0113, 0124,

0126, 0128,

**Actuator** Assembly

0001-0012, 0015, 0017, 0018, 0020-0042,

0044, 0046 -0069, 0071, 0073, 0075 -0079,

0081 -0095, 0097 - 0114, 0116 - 0122, 0124,

0125.

Bearing

0027

B-Nuts

**0060, 0076, 0077, 0**088, 0090, 0105

Clamp

0032, 0074

Compensator

0129, 0133, 0135

**Dia**phragm

0129

Disconnect-Rise-Off

0074, 0079, 0080, 0114, 0127

Ducting and Rigid Tubing

0072, 0074, 0076, 0077, 0088, 0096

Fitting or Flange

0012, 0050

Flow Limiter (orifice)

0003, 0004, 0009, 0010, 0018, 0020, 0023 -

0026, 0036, 0112, 0127

ıν

# PAGES L BOOSTER (Continued) 0001, 0003, 0008, 0017, 0031, 0033, 0035, Gage 0037, 0039, 0052, 0071, 0074, 0105, 0120 0015, 0016, 0019, 0026, 0039, 0058, 0060, Hose Assembly 0064, 0065, 0076, 0078, 0080, 0085, 0087, 0089, 0095, 0104, 0115, 0121, 0123, 0125, 0128 0059, 0075, 0090, 0091 Manifold 0057, 0079, 0083 Motor (Torque) 0059 Nut 0006, 0068 Piston 0001, 0003, 0018, 0075, 0081 Plug, Mechanical 0001, 0008, 0012, 0022, 0028, 0034, 0038, Pump 0039, 0045, 0047, 0048, 0051, 0056, 0059-0061, 0063, 0065, 0067-0069, 0074, 0075, 0080, 0090, 0094-0096, 0099, 0105, 0117, 0118, 0125, 0129, 0131-0135 0048, 0077 Screw 0002, 0004-0016, 0026, 0029-0031, 0034, Seals (O-rings, Gaskets, etc) 0036, 0037, 0039, 0040, 0043, 0044, 0047-0049, 0051, 0052, 0054, 0056, 0061, 0063, 0064, 0066, 0067, 0069, 0072, 0074-0078, 0081, 0083, 0084, 0086-0095, 0097, 0098, 0100-0106, 0108, 0113, 0117-0119, 0121 0123, 0126-0128 Spring 0055 0003, 0006, 0007, 0010, 0018-0020, 0022, Switch 0025, 0029, 0032, 0042-0044, 0049-0052,

Tank (Reservoir)

0073, 0095, 0128, 0130

0004, 0005, 0016, 0046, 0053, 0055, 0072, 0082, 0086, 0091, 0092, 0100, 0103, 0109,

### L BOOSTER (Continued)

Tank (Reservoir) (Continued)

Transducer - Feedback

Transducers - Pressure

Valve, Manually Operated

Valve, Check

Valve, Relief

Valve, Servo

Wiring Harness

### II. SUSTAINER/VERNIER

Accumulators

Actuator Assemblies

### **PAGES**

0111, 01115, 01119, 0124, 0128

0009-0011, 0013, 0028, 0030, 0036, 0039,

0042, 0046, 0059, 0060, 0106, 0109, 0111,

0112, 0122, 0131

0115, 0134

0040, 0064, 0070, 0078, 0092

0045

0037, 0940, 0041, 0041, 0051, 0053, 0054,

**0061, 0062, 0065, 0068, 0070-0073, 0075,** 

**0093, 0115**, 0129, 0130

**0011, 0015-0017, 0022, 0023, 0026, 0027,** 

0030, 0031, 0036, 0043, 0053, 0057, 0058,

**0061, 0065, 0070, 0075, 0085, 0088, 0092,** 

**0093, 0104, 0107, 0110, 0114, 0116, 0117,** 

0120, 0122, 0135

0102

0146, 0149, 0150, 0220, 0227-0229, 0233,

0237, 0242, 0252, 0258, 0276, 0277, 0280,

0287, 0288, 0297

0136, 0138, 0139, 0142-0144, 0146, 0148,

0151-0155, 0157, 0159, 0161, 0162, 0165-

0167, 0170-0175, 0177, 0178, 0180-0188,

0190-0192, 0194-0223, 0225, 0226, 0228-

**0230, 0232-0236, 0238-0244, 0246, 0247, 024**°

0249-0265, 0267-0287, 0289-0291, 0293-

0301, 0303-0307

II. SUSTAINER/VERNIER (Continued)	PAGES
Bearing	0155, 0181, 0243, 0275 .
B-Nut	0165, 0174, 0178, 0210 - 0212, 0229, 0237,
	0249, 0255, 0261, 0282, 0294.
Bracket	0157, 0162, 0185, 0203.
Compensator	0163, 0243.
Connector	0197.
Disconnect-Rise-off	0236, 0251, 0291-0293, 0303, 0306
Disconnect-Staging	0154, 0160, 0164, 0171, 0203, 0227, 0248,
	0253, 0263, 0264, 0266, 0267, 0270, 0277,
	0288, 0291.
Ducting and Rigid Tubing	0156, 0160, 0174, 0178, 0187, 0198, 0210-
	0212, 0223, 0226, 0237, 0239, 0244, 0245,
	0249, 0253, 0271, 0280, 0294, 0295, 0298,
	0299.
Fairing (Shield)	0225, 0239.
Filter-Mechanical-Fluid	0139, 0140, 0176, 0199, 0225, 0247, 0260,
	0282, 0295.
Fitting or Flange	0152, 0184, 0190, 0198, 0203, 0215, 0218,
	0238, 0260, 0261, 0266, 0280, 0295, 0306
Flowlinuiter (orifice)	0136, 0137, 0139, 0142, 0145, 0170, 0171,
	0176, 0178, 0179, 0181, 0182, 0188, 0193,
	0201, 0206, 0207, 0211, 0222, 0224, 0226,
	0246, 0305.
Gage	0182, 0187, 0189, 0213-0216, 0231, 0232,
•	0238, 0248, 0249, 0294.
Harness/Wiring/Circuits	0173, 0258, 0272, 0304.
Hose Assembly	0136, 0149, 0151, 0165, 0168, 0189, 0191,
	0193, 0195, 0197, 0205, 0210, 0211, 0222,
	0223, 0229, 0230, 0240, 0292, 0293, 0302,
•	0305.
36 16 11	0004 0048 0088 0088

0201, 0245, 0276, 0307.

Manifold

### II. SUSTAINER/VERNIER (Continued)

Motor

1

O-Rings/Seals/Gaskets

Piston

**Poppet** 

Plug

Pump

Screw

Shaft

Spring

Switch-Pressure

### PAGES

0153, 0176, 0280, 0286.

0146, 0148, 0150, 0151, 0153-0155, 0158,

0161, 0164, 0167, 0170, 0171, 0175-0178,

0180, 0182, 0187, 0199, 0192, 0194, 0196,

0198-0203, 0205, 0206, 0208, 0209, 0210,

**0212, 0214, 0216,** 0217, 0219-0223, 0227-

0230, 0232, 0233, 0235-0238, 0341, 0242,

0246, 0247, 0250-0253, 0255, 0256, 0258 -

**0262, 0264-0278, 0280, 0282, 0283, 0285,** 

0287-0290, 0293, 0296, 0298-0300, 0303,

0305, 0307.

0209, 0227, 0243, 0250, 0257.

0171, 0289.

0194, 0207

0137, 0151, 0152, 0159, 0163, 0184, 0188-

0190, 0193, 0198, 0199, 0214, 0215, 0217,

0218, 0227, 0233, 0237-0239, 0243, 0247,

**0254, 0255, 0259,-0262, 0264, 0266, 0270,** 

0271, 0273, 0274, 0276, 0278, 0279, 0285,

0288, 0302.

0154, 0158, 0159, 0200, 0237.

0137, 0241, 0242, 0305.

0167, 0243.

0306, 0307.

II. SOSTAINER/VERNIER (Continued)	PAGES
Tank (Reservoir)	<b>0136</b> , 0188, 0192, 0197, 0201, 0212, 0247,
Transducer - Feedback	0259 0138, 0140, 0142, 9147, 0160, 0161, 0165,
	<b>0166</b> , <b>0168</b> , <b>0172</b> , <b>0173</b> , <b>0176</b> , <b>0185</b> = <b>0187</b> ,
	<b>0</b> 191, 0208, 0211, 0213, 0215, 0224, 0239,
	0251, 0258, 0286, 0290, 0292, 0296, 0302-
	0304
Transducer - Pressure	0257
Valve - Bleed	0202
Valve- Check	0142, 0194, 0195, 0196, 0238, 0246, 0249,
•	0268.
Valve - Manually Operated	0192
Valve - Relief	0139, 0141, 0200, 0201, 0203-0207, 0215,
	<b>0228</b> , 0250, 0265, 0267, 0271, 0289, 0299
Valve - Servo	0143, 0150, 0152, 0154 - 0166, 0168 - 0170,
	0172, 0173, 0175, 0177, 0179, 0180, 0182,
	<b>01</b> 84, 0186, 0188, 0190-0192, 0196, 0197,
	0200, 0203, 0208, 0214, 0215, 0218, 0219,
	0222, 0224, 0226, 0234, 0240, 0248, 0252,
	<b>0254</b> - <b>0257</b> , <b>0264</b> , <b>0269</b> , <b>0280</b> - <b>0282</b> , <b>0285</b> ,
•	0287, 0291, 0295-0298
III. VERNIER SOLO	•
Accumulator	0311, 0312, 0315 -0317
Actuator Assembly	0307, 0310, 0312, 9314, 0317, 0318
Ducting and Rigid Tubing	0310, 0315, 0316
Filter-Mechanical-Fluid	0308
Fitting or Flange	0308

0310, 0312

Flask-Air

## III. VERNIEP SOLO (Continued)

Valve-Conax

PAGES

0309, 0311, 0313

III. VERNIEL BOLD (Continued)	<del></del>
Harness/Wiring/Circuits	0312, 0313
O-Rings/Scals/Gaskets	0307, 0308, 0311, 0314
Pin	0309
Pump	0312
Regulator	0311
<b>Sq</b> uib	0309
Timer	0311
Transducer - Feedback	0313, 0314

# GENERAL DYNAMICS Convair Division

Subject:

Explanatory Information For Use of Difficulties Review (DR)

Data Tab Runs

This information has been prepared to facilitate use of the <u>DR</u>. It is not intended to describe how the DR was prepared nor the scope of the existing effort.

The Difficulties Review (DR) is presented on a form compatible with automated data processing and printout.

Appearing at the top of the page (outside of blocked-in areas) is the identification of the system and whether it is Airborne or Ground Support Equipment. Appearing with this identification is the date of the document and the page number.

On the right hand side outside of the blocked area, appears the <u>abstract number</u>. An abstract number is assigned to each item of the Difficulty Review to facilitate traceability to the original input document.

Appearing under the major identification are blocks wherein the information on component or system difficulty is identified and explained. Attached are samples of pages coded for reference to the following definitions and explanations:

### CODE EXPLANATION

(1)

This group of blocks callout system, subsystem, test/report number, failed component name, difficulty (Dif) data source, and GDC part number if applicable. Also called out here is the vehicle number, if applicable, and the date of difficulty.

In the same row, the <u>site</u> location, and in case of a flight, captive flight, or countdown, the time will be entered.

The block containing PRI and OTH refer to whether or not the failure is primary or a secondary failure. A secondary failure is to be interpreted as caused by another discrepancy.

The last block in this row is obvious and requires no further explanation:

Refers to a major system of the launch vehicle.

Reters to subsystem of a major vehicle system if applicable, (Booster, sustainer, etc).

# GENERAL DYNAMICS

### Convair Division

CODE	EXPLANATION
4	Is a report number as opposed to type of report, (UTP, Countdown, Flight, FAR, etc.).
5	Is a type of report, such as a FAR, UTP, FRF, etc.
<b>6</b>	Refers to a component part by name.
\$ 8 9	Is a component piece part of the component and referred to by name, (plug, seal, wiring, diode, etc., only where applicable).
8	Is a GDC part number, if applicable.
9	Refers to a site or location at time of discrepancy on the component or vehicle system.
10	Is the vehicle on which discrepancy occurred. Vehicle number listed only if unit was installed on a vehicle at time of discrepancy.
11	Is the vendor part number, if applicable.
12	Is the vendor name, if applicable.
11 12 13	Is the failure caused by other component or other system. This item defines the failure as secondary or not secondary.
14	Refers to the primary failure. If item is labeled no, then item (13) may appear as a yes.
	Should item (13) appear as a yes, then an abstract will have been written to identify the cause of failure effecting the component referred to in the Difficulty Review, Item 6. It should be noted that
	a multiple failure may be recorded in these blocks, (yes/yes), or if a failure did not occur, (no/no).

### GENERAL DYNAMICS

Convair Division

# CODE EXPLANATION

- Defines the system effect. This effect is the result of the failure mode assigned to the component.
- Defines the vehicle effect. This effect is a result of the failure mode and the result of the system effect.

  It should be noted that corrective action may be taken whether or not
- 18) \*\*s the corrective action. Taken by GDC, the vendor, or both.

the failure was confirmed.

2 9 0  $\widehat{\omega}$ .... 99100 CONTAIR YES VICKERS VEHICLE BITE PRI VENDOR MANE BATE BIP TIME BIP OTH VENDOR PART NO FAILURE MOCE-CUT OF SPECIFICATION, BYM 40B-0430, PEAR TRANSIENT PRESSURES WERE 4100 TO 4808 PSIS, ALLOMASLE IS 4000 PSIS, MOCEOUS, TO FULL FLOW TIME IS 0.137 SECONDS, ALLOMASLE TIME IS 0.05 SECONDS. PAILURE MOCELEAR ENTERHAL. PUMP WAS REPORTED LEARING APTER NOT PIRING TEST. CASE MAS OVERPRESSURIZES CAUSING DAMAS. E to case cover beal. CORRECTIVE ACTION-VENDOR REVIEWED STOCK OF O-RIMS AND INFORMED THEIR PERSONNEL OF CORRECT BEAL INSTALLATION PROCES FAILURE MODELLEARTERTRAL-CONTINUOUS OIL BEEFAGE MAB OBSERVED DURING CHECKOUT. CAUSED BY DEFICTIVE SEAL AT PUMPTE CORRECTIVE ACTION-DEPT 141-3 TO PERFORM BETERT ON TWO (B) ADDITIONAL UNITE FROM LOT 180 TO BETERMINE LOY ACCEPTABLE
11: AND PROVIDE COMPARISON DATE. MD VICKERS YES AA-80684-A-EA NO 34-60664-R-EA M3-8-66684-AA OM FAILUNE MODE-LEAR EXTERNAL. 8-M EUS-DOSS PAILED TO MEET CASE BRAIN LEARANE REGUINEMENTH'S OF 0.0 SPW BURING PAT-LAT. This unit also failed to meet peak transient pressure reguintments. Repen to PPR-4801. CORRECTIVE ACTION-NO CORRECTIVE ACTION ACCOMMENDED BINCE DAMAGE OCCURRED BUE TO INABWERTENY OVERPRESSURIZATION OF PALC 0171 TES VICAERS TEB VICAERS FACTORY COMAIR 0071-01 640700 ..... 11003 11881 7126 CORRECTIVE ACTION-SURHIT ECP 7669 TO REVISE TEST RESUIREMENTS TO PRACTICAL LEVELS. DIFFICULTIES SEVIEW-NYSHAULIC SYSTEM-AIRSORME DIF DATA BOURCE PART NUMBER 7-00100-17 1-00500-13 87-00556-1 1-00100-1 130-010 CONTRAL DYNAMICS CONVAIR DIVIDION TEST/REPORT NUMBER PAILED COMPONENT NAME BOOSTER HYDRAULIC PUMP/SEAL HYDRAULIC PUMP SEAL HYDRAULIC PUMP BLV-A8-1U-268F HIDRAULIC PUMP ANCE PRESTURE BENBING PORT. BTBTEH EFFECT-MONE. 846-1781CH 1111 177 11 8767EH WYDRAULIC-A/B MYDRAULIC-A/8 HADDAUE IC-A/B HYDRAULIC-A/E MC PUMP. #30001CB BOOS TER  $\frac{4}{2}$ 9 (2)(B)  $(\mathcal{C})$ W GENERAL DYNAMICS CONVAIR DIVISION

COPACCITYC ACTION-BOOSTER HTDRAULIC FILL AND BLEED PERFORMED.  FALLURE HOCE-FAIL TO OPERATE AT PRESCRIBED TIME. TEST WAS RUN WITHOUT BOOSTER HTDRAULICS BECAUSE BOOSTER HPU COULD BYSTELL OPERATED HOUSE HOU COULD BYSTELL OPERATED HOUSE HOU COULD BYSTELL OPERATED HOUSE HOU VEHICLE EFFECT-HOME.  VEHICLE EFFECT-HOME.  COMRECTIVE ACTION-BOOSTER HPU HAND VALVE, MICROSLITCHEN US AND MICHOLINES.	TEST/REPORT NUMBER FAILED COMPONENT MANE MYDRAULIC FILL AND BLEED PERFORME FTAGBST/PS-WQ-QL-GACG ATE AT PRESCRIBED TIME, TEST WAS RITES WAS RITES DURING AUTOFILOT PI OCS MOT START. HPU HAND VALVE, KICROSMITCHES VS GGC/GRFSS-Q48/BL-4QS-QG-SS	DIF DATA BOURCE PART MUMBER COMPOSITE-FRO/DFL INAL CHECKS. AND VI ADJUSTED TO	1310 1310 930713 770840,164 780 9300 9300	300 300 300 300 300 300 300 300 300 300	PRI VENDOR HANE OTH VENDOR PART NO N	0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
4 1 1 4 5 1 4	111 AND BLEED PERFORME 1-01-CACE 118ED TIME. TEST WAS R 10 DURING AUTOFILOT PI 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	CCMPOSITE-FRO/DFL TUN MITHOUT SCOSTER INAL CHECKS. AND VE ADJUSTED TO	131D 930713 870RAULICE 39D 930703	BECAUSE CONTACT.	000 000 000 000 000 000 000	
75 2 3 4	1-01-GACE 118ED TIME, TEST WAS R 10 DURING AUTOFILOT FI 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	CCMPOSITE-PRO/DPL TUN MITHOUT BOOSTER INAL CHECKS. AND VE ADJUSTED TO	1310 930713 770840,164 770840,164 7808 930703	BECAUSE CONTACT.	000 000 000 000 000 000 000 000 000 00	<u> </u>
FAILURE HODE-FAIL TO OPERATE AT PRESCR MOT BE OPERATED REMOTELY. THIS WAS NOTE BYSTEM EFFECT-OPERATION DOES NOT STAR! VEHICLE EFFECT-NOME. COMRECTIVE ACTION-BOOSTER HPU HAND VAL	IDED THE. TEST MAD RED DUAING AUTOFILOT PI	INAL CHECKS.  AND VE ADJUSTED TO PLESHT	HTDRAULICE HARE WIPER 390 830703	BECAUSE CONTACT.	80087ER HPU C	
STATEM EFFECT-OPERATION DOES NOT START VEHICLE EFFECT-NOME.  CORRECTIVE ACTION-BOOSTER HPU HAND VAL	.VE. KICROSHITCHES VS	AND VE ADJUSTED TO I	990 990 990 990 990 990 990 990 990 990	CONTACT.		972
VEHICLE EFFECT-MOME, COMRECTIVE ACTION-BOOSTER HPU HAND VAL	.VE. KICROSMITCHES VS	AND VE ADJUSTED TO	38D 650703	CONTACT.		
CORRECTIVE ACTION-BOOSTER HPU HAND VAL	.VE. KICROSMITCHES VS	AND VE ADJUBTED TO PLICHT	395 395 830703	CONTACT.		
	1/01-401-00-39	FLIGHT	590 630703			
#TDRAULC-A/B 60C/BKF83-048				5.5	7£3 NO	-
PAILUME HODE-LEAK. BI HYDRAULIC ACCUMULATOR PRESSURE EXHIBITED NO PRESSURE DIFFERENCE DURING THE OIL EVACUATION SEGUENCE.	ALATOR PRESSURE EXHIBI	TED NO PRESSURE DIF	FERENCE DU	AING THE	OIL EVACUATIO	ů
STSTEM EFFECT-POSSIBLE CONTAMINATION, ALTHOUGH THE FAILURE MODE INDICATES INE POSSIBILITY OF AIR IN THE BOOSTER MYD RUALIC STSTEM, SYSTEM PERFORMANCE WAS SATISFACTORY.	ALTHOUGH THE FAILURE SATISFACTORY.	MODE INDICATES THE !	P055161L17	7 OF AIR	IN THE BOOSTE	0 1
VENICLE EFFECT-NOME.						•
COMMECTIVE ACTION-MONE. THE POSSIBILITY	THE POSSIBILITY OF CONTAMINATION WAS NOT CONFIRMED BY ANY OTHER TELEMETRY DATA.	IS NOT CONFIRMED BY	ANY OTHER	TELEMETRY	DATA.	
MYERALLIC-A/6 60C/BKF63-039	68C/BKF83-038/82-401-00-177	PLIGHT .	1770	2.5	88	*****
FAILURE HOEF-OUT OF TOLERANCE. BOOSTER HTD ACCUM. PRESS MEABUR. H3SP AND HTD. PUMP OUTLET PRESS. HEASUR H3P INDICATED AND HTD. PUMP OUTLET PRESS. HEASS. THEN ED AN INSTITAL HORMAL PRESS. RISE BUT TO A LOMER (3150 PSIA) THAN HORMAL (3300 PSIA) PEAK AT 8.3 BEC. THE PRESS. THEN BECATED TO 8720 PSIA DURING MEXT 1.3 SEC. SPECIFIC CAUSE UNKNOWN BUT SYMPTOMATIC OF UNUSUALLY HEAVY DEHAND ON BYSTE M.	HYD ACCUM, PRESS MEA ) A LOMER (SISO PEIA) (EC. BPECIFIC CAUSE UN	THAN MORNE (SSEE P. INNOWN BUT BYWPTONATI	PUMP OUTLE STA) PEAK IC OF UNUS	T PRESS. AT 8.3 MG	HEABUR HSF SH C. THE PRESS. VY DEHAND ON	DICAT THEM EYBTE
THE STRICK CFECT-OPERATION TOO LOW. BOOSTER HYDRAULIC PRESS. LOWER THAN MORNAL FOR A TIME PERIOD OF -1 3 SEC TO 1.5 RE	ER HYDRAULIC PRESS. L	OMER THAN NORMAL FOR	P A TIME P	ER 100 04	-t 3 9Kc 10 1	

工

#1084W 1C-4/8

CORRECTIVE ACTION-NUME. VEHICLE EFFECT-MONE.

= 8

19/C22M61-015-9A1847-/L4-7MO-01-71 COMPOSITZ-FPD/DPL 7107 67

GENERAL DYNAHICS CONVAIR BIVISION

19 1UN 1866

9901 277 61	DIPPICULTIES REVIEW-HYBRAULIC SYSTEM-AINDORNE	RAULIC SYSTEM-AIRBOR	¥					
STSTEM SUC-STSTEM	TEST/REPORT MARER PAILED COMPORENT MARE	DIF DATA BOURCE PART MUNDER	WENTCLE DATE DIF	MEMICLE SITE PRI DATE DIP TIME DIP OTH	# 5 6	VENDOR NAME VENDOR PART NO		
HYDRAULIC-A/B BOOSTER	FTAE866/PE-10E-00-16 PUMP	74	164	18/ETR	7 G		• • • • • • • • • • • • • • • • • • • •	
FAILURE MODE-ERRATIC OF	FAILUME HODE-ERRATIC OPERATION. BOTH HTDRAULIC ACCUMALATOR PRESSURES SHOWED FLUCTUATIONS OF APPROXIMATELY 1000 PSI Ear-to-peak.	MESSURES SWOLED PL	UCTUATION	8 0 v	N INO	72LY 1000 P81		
STATEM EFFECT-ERRATIC OPERATION.	OPERATION.							
WEHICLE EFFECT-NOME.							<del> </del>	
CORRECTIVE ACTION-REPLACED HYDRAULIC PUMP.	ACED HYDRAULIC PUMP.							
H, DRAUL IC-A/B BODS TER	8945074 ACCHALLATOR PRESSURE GAGE, PLUG	UTP-PET 27-06542-3	111000	3/ <b>0</b>	46	YES AMERICAN STAND ARD 0003-710-1	•6003	
FAILURE MOE-OUT OF SPECIFICATION.BU	OF SPECIFICATION-BLOWOUT PLUE FAILED TO BLOWOUT AT VALUES 19 PSID AND 30 PSID. RUFTURE OCCURRED AT URST PRESSURE TEST.	LOMOUT AT VALUES 19	7.0 Mg	<b>6</b>	<b>3</b>	NE OCCURAÇÃO AT		
CORRECTIVE ACTION-FAIL	CORRECTIVE ACTION-FAILURE RESOLUTION NOT CONPLETE.							
HTDRAULTC-A/B BOOSTER	2744508 FUMP BODGIDS HYD.	UTP-PET 27-D6566-1	1470	3/ <b>9</b>	*	VEB VICEERS AA-60064-R-2A	00000	
FAILUPE MOGE-EFRATIC O BRUNE FLUCTUATIONS. PUM	FAILUPE MOSE-EFRATIC OPERATION, WHILE PREPARING FOR THE FINAL PROOF PRESSURE TEST PURP BECAME MOISY WITH CUILET PAG Sure fluctuations. Pland Disassembly revealed considerable damage, Problem Proof Promit Bearing Failure.	MAL PROOF PRESSURE I	EST PURP (	MECANE NO ARING FAIL	234 K	The Culter Pre		
CORRECTIVE ACTION-PART	CORRECTIVE ACTION-PART IS BEING FAILURE ANALYZED. CORRECTIVE ACTION RENAINS CHEM.	WE ACTION REMAINS OF	ž.					
HYDRAUL!C-A/B BOCSTER	69A49BS.1 Actuator abby.	LTP-PET 27-06550-23	*040		Ş	YES MYD. RESEARCH 104700-23	098044	
FAILURE MODE-OUT OF TO OMDS. REBUIREMENT IS WI FULL STROKE AND 40,000	FAILURE MOCE-OUT OF TOLERANCE REPORTED ATTRIBUTED TO PROBIBLE TEST ERROR. THE EXTEND AND BETRACT TINE MAS 0.830 SEC Nos. Resultement is within 0.458 to 0.612 seconds. This predents no adverse effect bince the unit passed the 10.000 Full birone and 40,000 malf strone proof cycle.	BLE TEST EPROR. THE ESENTS NO ADVERSE ES	EXTEND AN PEC: BINCI	D RETRACT E THE UNI	7 T T T T T T T T T T T T T T T T T T T	MA 0.630 SEC MED THE 10.000		
CORRECTIVE ACTION-NOW	CORRECTIVE ACTION-NOWE SINCE THE REPORTED FAILURE MAS NOT MERIFIED.	WAIPIED.						

GENERAL DYNAMICS CONVAIR DIVISION

BIFFICULTIES REVIEW-NYDRAULIC SYSTEM-AIRSCRNE

15 JUN 1966

87.97EX 84.8-87.87EX	TEST/REPORT NUMBER FAILED COMPOMENT NAME	DIF DATA SOURCE PART HUMBER	VEHICLE Date dif	11E 01F	# # o	WENICLE BITE PRI VENDOR NAME DATE DIF TIME DIF OTH VENDOR PART NO	
HYDRAUL IC-A/B BOOSTER	ODAADOS ACTULTOR ASSV	UTP-PET 27-08530-23	148099	5/9 <del>8</del>	Ş	YES HYD. RESEARCH 104700-23	***************************************
FAILURE MODE-STRUCTURAL   GREAT AB 300 68 RMS, THE	FAILURE MODE-STRUCTURAL DUE TO ACTUATOR ROD FRACTURE MAICH OCCURREDDURING VIBRATION TESTING. 6 FORCES BUILDUPMAS AS Great as 300 68 RHS. THE IMPUT FORCES WERE 17 68 RHS.	OCCURREDDURING VIBRA	,TION TEST	Ä.		BUILDUPMS AS	·
CORRECTIVE ACTION-NOME, NOT COMPLETED.	CORRECTIVE ACTION-NOME, TESTING MAS CONTINUED. TEST VIBRATION REQUIRENENTS REVISED, REJECP 5697, FAILURE RESOLUTION NOT COMPLETED.	ON REGUIREMENTS REVI	MCO, MC.6	CP 3687.	FAIL	ME RESOLUTION	
HYDRAULIC-A/B	PUMP BOOSTER HYD., O RING	UTP-PET R7-06360-1	9 <b>6</b> 0324	3/ <b>9</b>	76.8	TES VICKERS INC. AA-BOGS4R-EA	£80300
FAILURE MODE-INTERNAL LEAK DUE TO FAULTY SHAFT SI ULT NAS FOUND AFTER COMPLETION OF LOW TEMP. TEST.	FAILURE MODE-INTERNAL LEAK DUE TO FAULTY SHAFT SEAL. SEAL WAS FOUND TO HAVE NICKS AND MOLES. CAUSE UNDETERMINED. FA AT MAS FOUND AFTER COMPLETION OF LOW TEMP. TEST.	MS FOUND TO HAVE NIC	KS AND HC	LES. CAU	3	DETERMINED. FA	
CORRECTIVE ACTION-FAILURE	CORRECTIVE ACTION-FAILURE RESCLUTION NOT COMPLETE.						
HYDRAULIC-A/B 8003TER BOOSTER	2744502 Valve-Hamually operated	UTP-PET E7-08568-3	640523	3/ <b>93</b>	2	VES STEREN 12860	***************************************
FAILURE MODE-OUT OF SPEC OR DEVIATION WOULD NOT HA	FAILURE MOE-OUT OF SPECIFICATION. THE MINIMUM FLOW OF 0.54 GPM WAS NOT ACHIEVED BINCE 0.527 WAS REPORTED. THIS MINI OR DEVIATION WOULD NOT HAVE ANT ADVERSE EFFECT ON MISSILE OPERATION.	GPH IMB ROT ACHIEVE ERATION.	D SIKE 0	.527 tas	2	ITED. THIS HIM	
CORRECTIVE ACTION-FAILURE	CORRECTIVE ACTION-FAILURE RESCLUTION NOT COMPLETED.						~
HYDRAULIC-A/B	69A5102 ACTUATOR ASSY-BOOGTER	UTP-PET 27-06550-23	418000	<b>5</b> /0 <b>5</b>	Š	TES MYD. RESEARCH 104700-23	100000
FAILURE MODE-STRUCTURAL. 1-8574-1E PARA. 55E.	FAILURE MODE-STRUCTURAL. PISTON RCO GAS FOUND CRACKED FOLLOWING VISRATION TESTING IN ACCORDANCE WITH TEST PROCEDURE 1-3578-1E PARA. 352.	MING VIBRATION TESTS	ME IN ACC	ORDAHCE	E	TEST PROCEDURE	
CORRECTIVE ACTION-VIBRATI	CORRECTIVE ACTION-VIBRATION TEST REQUIREMENTS MODIFIED, RE. ECP 3697.	ECP 3097.					

CONVAIR DIVIBION

11 JUN 1988

9961 007 11	DIFFICULTIES REVIEW-HYDRAULIC SYSTEM-AIRBORNE	AULIC SYSTEM-AIRBOR	~				1
8787EH 8487EH	TEST/REPORT NUMBER FAILED COMPONENT NAME	BIF DATA BOURCE PART HUMBER	WENICLE DATE DIF	917E 710E 51F	E 5	WINICLE BITE PRI VENDOR MANE	
HYDRAULIC-A/B BOOSTER BOOSTER	GBASO45 SWITCH MYD, PAESBURE	U19-0PT	£12000	3 <b>3</b>	YES SOURMS 200717	BOURNS 2007171401	***************************************
FAILURE HODE-STRUCTURAL ESTMAS TO SPECIFICATION MG BASES.	FAILURE HODE-STRUCTURAL CAUSED BY A MELD FAILURE IN THE MOUNTING BABE. THIS MAS A SPECIAL DESIGN EVALUATION TEST. T ESTANS TO SPECIFICATION 27-DESAS. THREE UNITAFAILED DURING VIBRATION, EACH EMPERIENCED MELD FAILURES IN THEIR MOUNTI MS BASES.	MTING BASE. THIS WEITER	A SPECIAL	L DESIGN	EVALU RED 1H	A1704 TEBT. T THEIR HOUNTE	
CORRECTIVE ACTION-PAILU	CORRECTIVE ACTION-FAILURE RESOLUTION NOT COMPLETED.						
HYDRAULTC-A/B BOCATER	EPA4774 ACCUMILATOR PRESSURE 646E; PLU6	UTP-PET R7-06568-3	11300	<b>9/0</b>	2 4 8	АНЕВІСАН ВТАНО ARD 0003-719-1	<b>2</b> 50 <b>3</b> 60 3 60 3 60 3 60 3 60 3 60 3 60 3 60
FAILURE MODE-OUT OF SPECIFICATION.BLOND AT &6 FSID, DURING BURST PRESSURE TEST, CORRECTIVE ACTION-FAILURE RESOLUTION NO	FAILURE MODE-OUT OF SPECIFICATION, BLOWOUT PLUG FAILED TO BLOWOUT AT VALUES OF 15 PSID AND 30 PSID. RUPTURE OCCURNED. AT 66 PSID, DURING BURST PRESSURE TEST. CORRECTIVE ACTION-FAILURE RESOLUTION NOT COMPLETE.	GOOUT AT VALUES OF	<b>2</b>	92 O	5	TURE OCCUPATED	
HTDRAUL IC-A/B BOOSTER BOOSTER	69A3C19 ACCUMALATOR PRESSURE GAGE	UTP-PET 87-06542-3	11200	) <b>3</b>	5	YES AMERICAN STAND ARD 4003-718-1	18 600
6 ×	SPECIFICATION.BLOW OUT PLV6 FAILED TO BLOW OUT AT VALUES OF 15 PSID AND 30 PSID. RUFTURE OCCURR 5 Surst pressuretest.	NOM OUT AT VALUES OF	5 <b>5</b> 5	26 04 05 05 05 05 05 05 05 05 05 05 05 05 05	•	UPTURE OCCURR	
CORECTIVE ACTION-FAILU HYDRAULIC-A-8 BOOSIER	ON-FAILUME MEBOLUTION NOT CONFLETE. 6044960 ACTUATOR A887, ORIFICE	UTP-E11 87-06550-81	80108	3/00	20 1	YES HYD. RESCARCE SOATOG-81	<b>1</b>
FAILURE MODE-FAILED DUR	FAILURE MODE-FAILED DURING DERATION DURING LIFE TEST OF PROCEDURE 1-3378-16 FILTER ABBY. CRIFICE FRACTURED. Cogrettive attonishasey s-88 MAS CRIENATED TO LOCATE AND RETURN TO VENDOR ALL UNITS FOR REMORK, REIDENTIFY AND RE	ICCEDURE 1-3376-1E F	1.7EF A88	r. ORIFICA		TURED.	
TURN TOED/C.				İ			<del>- 1</del>

19 JUN 1966

CONVAIR DIVIBION
COMVAIR

DIFFICULTIES REVIEW-HYDRAULIC SYSTEM-AIRSORME

HTDRAULIC-A/B BOOSTER	6944909 ACTUATOR ASSEMBLY, ORIFICE	UTP-ETT RUMERS UTP-ETT ET-D0550-E3	940184	71ME DIP 0TM	OTH VENDOR PART NO VES HYD. RESEARCH 104700-83	9 -
FAILURE MOE-PAILED D	FAILED DURING OPERATION. DURING LIFE TEST OF PROCEDURE 1-5378-1E FILTER ASSY ORIFICE FRACTURED.	PROCEDURE 1-3378-1E	FILTER ABI	14 OR 17 CC	FRACTURED.	
TURN TO 60/C.	URN TO GOTC.	PETURN TO VENDOR AL	L CALLTO	ON HENORY	REIDENTIFY AND	<u>.</u>
MYDRAULIC-A/B BCOSTER	CT-98-D4-244 ACTUATOR ASSEMBLY, COMMECTOR	FAR 27-00550-13	1745 660121	<b>70</b>	YES HYDRAULIC RESE NO ARCH 104700-13	9
FAILURE MODE-STRUCTUR TRANSDUCER BODY AFTER	FAILURE MODE-STRUCTURAL. THE ACTUATOR ASSENBLY FEEDBACK TRANSDUCER CONNECTOR PLUG MAS FOUND CRACKED LOOSE FROM THE TRANSDUCER BODY AFTER THE ENGINE HACELLE MAS REMOVED FROM CENTAUR BOOSTER 1740.	IANSDUCER COMECTOR I ENTAUR BOOSTER 1740.	Act this r	OUND CRACI	(ED LOOSE FROM TH	<u> </u>
CORRECTIVE ACTION-COADS ADS APPLIED TO THE COMING UNITS TO PRECLURE	CORRECTIVE ACTION-COMFINED FAILURE, SOME CORROSION DEPOSITS FOUND, THE SOLDER JOINT FAILED SECAUSE OF EXCESSIVE LO ADS APPLIED TO THE CONNECTOR OR ATTACHED ELECTRICAL MIRES. SITE AND FACTORY PERSONNEL TO USE MORE CAUTION UNED MADEL INGUMITS TO PRECLUE RECCURRENCE OF SUCH PROBLEM.	IIS FOUND. THE SOLDER BITE AND FACTORY ME	L JOINT FA	ILED BECA	LAUTION WEN HAN	ې ه
MYDRAULIC-A/B BOOSTER	SLV-98-59-4047 FLUID TANK, O RING	FAR 27-08551-3	9001 9 <b>6</b> 0120	CX1 E	BENBON 8985	
FAILURE MODE-INTERNAL	INTERNAL LEAK. DURING PROCEDURE 27-90215 THE TANK LEAK OIL TO THE PHEUMATIC SIDE OF TANK.	TANK LEAK OIL TO THE	F PECPATI	C 810£ CF	1 A.K.	
CORRECTIVE ACTION-CONFI E OF MEONG SIZE O'RING. UND PMEUMATICST TO THIS	CCRECTIVE ACTION-CONFIRMED FAILURE. LEAK MAS CAUSED BY WRONG SIZE O RING, VENDOR TO TAKE PRECAUTION TO PRECLUDE US E of medne size o ring, corrective action documented in rar BLV-85-58-3780, Failure analysis assismed system 36 igno Und Pmeumatist to this problem, smoald be system id, (Airborne Hydmaulics).	COME SIZE O RIMG. WEN 1 SLV-95-58-3780. FAI SORNE HYDRAULICS).	ECOR TO TAI	KE PRECAU 7318 A8SI	TION TO PRECLUDE US HED SYSTEN SG 16AO	<b>ę</b> 0
PODSTER	60C/A6U63-001-36/FC-CO-D1-0036-D01 COMPOSITE-FACTORY ACTUATOR A8ST-VERNIER- 27-63312-605	21 COMPOST TE-FACTORY 27-65312-805	3001	FACTURY	VES LIGHEL PACIFIC ND	16 660313
FAILURE MODE-ERRATIC	PAILURE HOJE-ERRATIC OPERATION. ERRATIC RESPONSE OF THE VERNIER NO E PITCH EMBINE MAS OBSERVED AT SCO VERNIER ACTIV	IRNIER NO E PITCH EM	D 841 3416	BSERVED A	T SCO VERNIER ACT	

GENERAL DYNAMICS CONVAIR DIVISION

1981 B7 87

₹ . . . . . .

....

HYDRALIC-ALB ACTUATION ASSTE-MSTAINER. BT-65514-617 660118 GOLC TES LIGHEL PACIFIC 690818 6003156 ACTUATION ASSTE-MSTAINER. BT-65514-617 660118 GOLC TES LIGHEL PACIFIC 690818 6003156 ACTUATION DURING CREATION DURING COLL BOOD TO CASC.  13. SHIFT WAS CAUSED BY LACK OF TRANSDUCER COLL BOOD TO CASC.  13. SHIFT WAS CAUSED BY LACK OF TRANSDUCER COLL BOOD TO CASC.  14. SHIFT WAS CAUSED BY LACK OF TRANSDUCER COLL BOOD TO CASC.  15. SHIFT WAS CAUSED BY LACK OF TRANSDUCER COLL BOOD TO CASC.  16. SHIFT WAS CAUSED BY LACK OF TRANSDUCER COLL BOOD TO CASC.  17. CORRECTIVE ACTION-INITIATION OF SURVEY 6-48 REQUIREME TO THE THE TOTAL LIMIT WEN HYDRALLIC FOLEN WAS AFFLED. THE ACTUATION BE TRAINED IN THIS SOCIETY ACTION-IN ACCOUNTING ASST.  17. CORRECTIVE ACTION-INITIATION OF SURVEY 6-100 LIMIT WEN HYDRALLIC FOLEN WAS AFFLED. THE ACTUATION BE TRAINED IN THIS SURVEY ACTION-IN ACCOUNTING ACTION-IN ACCOUNTING ACTION WAS TAKEN. THE ESPONSOR FAILURE COLLO NOT BE TRAINED IN THIS SURVEY ACTUALLY ACCOUNTING ASST.  17. CANADALLIC-ALB TRAINER FEACUATION HAD COMPLETED.  17. CANADAL FEACUA	13.5.4 9.00 - 57.5.EM	TEST/REPORT NUMBER FAILED COMPONENT NAME	AT NUMBER ONENT NAME	DIF CATA SOUNCE PART NUMBER	WENICLE DATE DI	VEHICLE SITE DATE DIF TIME DIF		PRI VENDOR NAME OTH VENDOR PART NO	
CT-04-INITIATION OF SUNEY 6-66 REGUIRING A CHECK OF BOND ON ALL UNITS.  CT-04-04-860  E-ERATIC OFFRATION, DURING COGNED PLIGHT ACCEPTANCE TEST, PER PROCEDURE FI-CO-01-0-05-04-16-16-16-16-16-16-16-16-16-16-16-16-16-	MYDRAULIC-A/B BOOSTER	6984926 ACTUATOR A88783	STA [HER.	UTP-ETT E7-85314-617	311000	2/05	ş	IONEL PACIFIC	
ACTION-INITIATION OF SURVEY 6-66 REGUIRING A CHECK OF BOAD ON ALL UNITS.  CT-48-04-260  ACTUATOR ASSEGLY  RE-06550-18  87-06550-18  6-658ATIC OPERATION. DURING COMBINED PLIENT ACCEPTANCE TEBT, PER PROCEDURE FI-CO-01-0-6NGINE HAMBOOK TO THE MEGATIVE PITON LINIT WERN WYDRAULIC POWER WAS APPLIED. THE ACTUATOR ROWGHOUT COMPOSITE FLIENT.  ROWGHOUT COMPOSITE FLIENT.  ACTION-COT A COMPUTED FAILURE. FUNCTIONAL ANDMALIES OCCURRED WITH CONTROL SIGNALS PROCEDURE  ACTION-COT A COMPUTED FAILURE. FUNCTIONAL ANDMALIES OCCURRED WITH CONTROL SIGNALS PROCEDURE  ACTION-FAILURE SESCLUTION HOT COMPLETED.  ACTION-FAILURE SESCLUTION HOT COMPLETED.  SLV-48-04-9029  FAR 540-600 PACTORY  ROWGHOUT CONTROL ASST.  ET-06559-17  FAR 564D PROCEDURE  FAR 6700 PACTORY  ROWGHOUT CONTROL ASST.  ROWGHOUT CONTROL ASST.  ET-06559-17  FAR 564D PROCEDURE  FOR 664D PACTORY  ROWGHOUT CONTROL ASST.  R	TALLURE MCDE-PAILE TB. SMIFT MAS CAUSE	ID DURING OPERATION. DURING BY LACK OF TRANSDUCER (	MS Z AKIS SMEEP COIL BOND TO CAL	VIBRATION THE UNITE	MAL FOE	11.Q4 94.EF	5 4	PROK. B. 6 WOL	
CT-A9-04-PED ACTUATOR ASSENGET REFERENCE TEST, PER PROCEDURE PI-CO-01-0- ENCINE HONED TO THE NEGATIVE PITCH LIMIT WERN HYDRALLIC FOLCE WAS APPLIED. THE ACTUATO ROUGHOUT CORPOSITE FLIGHT.  ACTION-::::TO SIGNALS. NO SPECIFIC CORRECTIVE ACTION WAS TAKEN. THE KEPORTED FAILURE COALD NOT RECURED SIGNALS. NO SPECIFIC CORRECTIVE ACTION WAS TAKEN. THE KEPORTED FAILURE COALD NOT RECURED TO HOME PARTS FROM LIFE CYCLING.  ACTION-FAILURE RESCLUTION NOT COMPLETED.  SIV-A8-04-90.9  BOOSTERS ACTUATOR ASSV. ET-04559-17 651821	CORRECTIVE ACTION-	INITIATION OF SURMEY 6-60	6 REGUIRING A CO	HECK OF BOND ON ALL	<b>LE</b> 278.				
E-ERRATIC OPERATION, DURING COMBINED PLIGHT ACCEPTANCE TEST, PER PROCEDUME FI-CO-01-0- ENCINE MOVED TO THE NEGATIVE PITOH LIMIT WHEN HYDRAULIC POWER WAS APPLIED. THE ACTUATO ROUGHOUT CONTOSTE FLIGHT.  ACTION-SOT A CONFIDHED FAILURE. FUNCTIONAL ANDMALIES OCCURRED WITH CONTING. STEMLS PRO LIED STEMALS. NO SPECIFIC CORRECTIVE ACTION WAS TAKEN. THE REPORTED PAILURE COALD NOT LIED STEMALS. NO SPECIFIC CORRECTIVE ACTION WAS TAKEN. THE REPORTED PAILURE COALD NOT  ACTION-PAILURE RESCLUTION HOT COMPLETED.  SLV-89-04-50:9 BOOSFERS ACTUATOR ASST. FAR T-08559-17 091221	HYDRAULIC-A/B BOOSTER	CT-A9-04-200 ACTUATOR ASSEMBLY		FAR 27-06550-13	1940 80111	FACTORY	1	TORAULIC NESE RCH 04700-13	•
ACTION-:::T A CONFIDED FAILURE. FUNCTIONAL ANCHALIES OCCURRED WITH CONTROL SIGNALS PROLIED SIGNALS. NO SPECIFIC CURRECTIVE ACTION WAS TAKEN. THE REPORTED FAILURE COLLD NOT ETAKASS.  E-LEAK DUE TO HORN PARTS FROM LIFE CYCLIMS.  ACTION-FAILURE RESCLUTION HOT CONPLETED.  SLV-AS-04-90.9  BOOSTERS ACTUATOR ASSV.  E7-04559-17  812-28  71-21  71-21  74-71  71-21  74-71	FAILURE MOLE-ERRAT RE THAT B-2 ENGINE POSITION THROUGHOU	TIC OPERATION, DURING COMMONED TO THE NEGATING PLY	BINED PLIGHT ACC TON LINIT WHEN Y	CEPTANCE TEST, PER I ATDRAULIC POMER 1468	MOCEDIAE P	1-C0-01-0	-ACS I	NDICATIONS NE AINED IN THIS	
### ##################################	CORRECTIVE ACTION- ER THAT SUPPLIED SI COMPUMENT.	ONT A COPTIPHED FAILURE.	FUNCTIONAL ANCH	MALIES OCCURRED METS B TAKEN. THE REPORTS	CONTROL 1 ID FAILURE	COLLE PR	20 12 34 12 12 12 12 12 12 12 12 12 12 12 12 12	SERVOLHELIFI ACED TO THIS	
E-LEAK DUE TO WORN PARTS FROM LIFE CYCLING.  ACTION-FAILURE RESCLUTION NOT COMPLETED.  SLV-AB-04-90.9  BOOSFERS ACTUATOR ABST. FAR  BOOSFERS ACTUATOR ABST. E7-00359-17  651221	HYDRAULIC-A/B BOOSTER	274496 Tank-Hydraulic		U7P-PE7 E7-06551-8	222 160	3/01	40,	ENBOW B858	•••
SLV-AB-04-9009 FAR 71-E1 FACTORY BOOGNERB ACTUATOR ABSV. E7-08350-17 651221	FAILURE MODÉ-LEAN CORRECTIVE ACTION-	DUE TO MORN PARTS FROM LI	ITE CYCLING. OPLETED.						
	HYDRALLIC-4/B BOOSTER	SL V-A9-04-90:9 BUDSTERS ACTUATOR	ABSY.	7AR 27-06359-17	13-14	FACTORY	TES T	TDRAULIC RESE RCH 04700-1	į

CORRECTIVE ACTION-DESIGN WAS RESUESTED TO REVIEW AND REVISE THE SERVO VALVE SPECIFICATION, ESTABLISHING NEW UPPER L INITS FOR GAIN TO VALVES WILL NOT OBCILLATE WHEN INSTALLED IN AN AUTOPILOT SYSTEM, DESIGN SMOULD ALSO DEVISE ADDITION NAL COMPONENT ACCEPTANCE TESTS TO ASSURE COMPATIBILITY AND STABILITY IN THE BERVOLOOP, 60/C MILL CONTINUE TO MONITOR THIS PROBLEM.

GENERAL DYNAHICS CONVAIR DIVISION

13 JUN 1986

i

DIFFICULTIES REVIEW-HYDRAULIC SYSTEM-AIRBORNE

LAT NO	VES MYDRAULIC RESE SEGACE NO ARCH 104700-13	*	4E C-1	C RESE 004074	TEST ED BY BATTO IC CON	# # # #	213068	999		C RESE
VEHICLE SITE PRI VENDOR NAME DATE DIF TIME DIF OTH VENDOR PART NO	HYDRAULIC ARCH 104700-18	INDICATE	ED INTO TI	YES HYDRAULIC RESE NO ARCH 104700-15	VIBRATICA MAS CAUSI IXTURE YIE ING DYNAMI	ELIMINATI	7E8 BOURNS 207171301	MECOHNS AL	i	YES HYDRAULIC RESE NO ARCH 104700-19
# 5 5	ž š	A1108	7484 17104	i	ECIAL ILURE EST F	5 G C T	168	N 20 CHENO		
817E 72ME DI	40.	X 14 ORK	PARTICLE NES AT CR	FACTORY	C A 3P EBB:Y FA ED WITH-T	REDEBICH	2/03	LESS THA PAMCY 18		FACTORY
VEHICLE DATE DIE	1740	D FEEDBAC	IE WHEN A	651102	SPORMANCE 18704 ASS CON CUNTA	KHBLY BE Parameter	9370159	7 DISCREI		8810 <b>58</b>
DIF DATA SOURCE PART NUMBER	FAR 27-04550-13	ANCING (CTP-INT-0004 1-170E.	IFT POSSIBLY OCCURRE E HIGH FLUM FLUSHING	FAR 27-06550-15	AILED WEN DURING PE 18 VIBRATION TEST. F 300CER INSERT POSITI 10USLY EXPERIÊNCED.	ENDED THE PISTON ASS H FIXTURE AND TEST HENTS.	UTP-PET 87-44900-624	BISTANCE ACROSS PINI TION TESTING CAUSE (	DATA CHET.	74R 87-00950-18
TEST/REPORT NUMBER FAILED COMPOMENT NAME	CT-88-04-236 ACTUATOR ASSEMBLY	FAILURE WOE-OUT OF TOLERANCE. CURING ATLAS/CENTAUR QUAD TANKING (CTP-INT-0006) PEEDBACK INFORMATION INDICATED 8-2 Engine 0.50 Degrees from Mull. Serial mamber of unit mas 103-1702.	CORRECTIVE ACTION-FAILURE NOT CONFIRMED. TENPORARY MULL SHIFT POSSIBLY OCCURRED WHEN A PARTICLE PASSED INTO THE C-3 MOZZLE AND RESTRICTED HYDRAULIC RICH. VENDOR TO INCORPORATE HIGH FLOM FLUSHING PROCEDURES AT CRITICAL STEPS IN SERV MALVE ASSEMBLY TO FLUSH ANAY CONTANINANTS.	SLV-99-04-5076-P ACTUATOR-BOOLTER PISTON	FAILURE MODE-STRUCTURAL, THIS PISTON ASSEMBLY REPORTEDLY FAILED WHEN DURING PERFORMANCE OF A SPECIAL VIBRATION TEST THE PISTON ASSEMBLY WAS FOUND CRACKED AFTER THE PIRST Y-AKIS VIBRATION 1681, PISTON ASSEMBLY FAILURE WAS CAUSED BY A MOTCH CONDITION CREATED BY PISTON WALL REDUCTION AND TRANSDUCER INSERT POSITION COMPLED WITH-TEST FIXTURE VIBRATION NS IMPOSED ON ACTUATOR ASSEMBLIES ARE MORE SEVERE THAN PREVIOUSLY EXPERIENCED. AND NON-DEFINED OPERATING DYNAMIC CON DITIONS PECULIAR TO -15 UNITS.	CORFECTIVE ACTION-NO CORRECTIVE ACTION TAKEN. IT IS RECOMENDED THE PISTON ASSEMBLY BE REDESIGNED TO ELIMINATE THE MOTCH COLDITION. IT IS RECOMENDED A PEVIEW OF THE VIBRATION FLATURE AND TEST PARAMETERS BE MADE TO DETERMINE THE RELATIONSHIP OF THESE TESTS TO BOOSTER SERVIC CYLINDER REGULARISM.	69A4848 SWITCH, MYD PRESSURE	FAILURE MODE-OUT OF SPECIFICATION, THE UNITS INSULATION RESISTANCE ACROSS PINS A-B WAS LESS THAN 20 PECOHNS ALLONED MEASURING 1.23 13 OHNS, DURING PROOF CYCLE FOLLOWING VIBRATION TESTING CAUSE OF DISCREPANCY IS UNKNOWN FAILURE WAS MCONFIANED.	CORRECTIVE ACTION-NONE. TESTING INTENT WAS POR COMPARATIVE DATA CMLY.	CT-98-D4-238 BOORTEN BERVO CYLINDER, PISTON
SYSTEM S(G-SYSTEM	HTDRAULIC-A/B BOOSTER	FATURE MODE-OUT OF TOLI ENGINE 0.50 DEGREES FROM	CORRECTIVE ACTION-FAILURE NOT CONFIRMED, TO MOZZLE AND RESTRICTED HYDRALLIC FLOM, WEND OMALVE ASSEMBLY TO FLUSH AMAY CONTANINANTS.	HTDRAULIC-A/B BODSTER	FAILURE MODE-STRUCTURAL. THIS THE PISTON ASSENDIT WAS FOUND A NOTCH CONDITION CREATED BY P NS IMPOSED ON ACTUATOR ASSENDIDITIONS PECULIAR TO -15 UNITS.	CORRECTIVE ACTION-NO COR NOTCH CONDITION, 11 15 RE LATIONSHIP OF THESE TEST	HYDRAULIC-A/B GOOSTER	FATLURE MODE-OUT OF SPEC MEASURING 1.29 19 OMES, UMCOMFIRMED.	CORRECTIVE ACTION-HONE.	MYDRAULIC-A/B BOOSTER

FAILURE HORE-ATRUCTURAL. UNIT WAS REJECTED DURING P.E.T. POR EXTERNAL LEARAGE A: THE PISTON ROD. FAILURE ATTRIBUTED TO A CRACKED PISTON ROD CAUSED BY A MOTCH CONDITION CREATED BY PISTON WALL REDUCTION AND INSERT POSITION, COUPLED WITH EXCESSIVE VIDRATION CONDITIONS DURING TEST.

GENERAL DYNAHICS CONVAIR DIVISION

13 104 1066

4

1

	W. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	TE REVIEW WIL						
8787EN 8U\$-8787EN	TEST/REPORT NUMBER FAILED COMPONENT NAME	T HUNGER	DIF DATA BOURCE PART NUMBER	VEHICLE DATE DIF	817E 11ME 01F	9 0 1 H	VENDOR NAME	
CORRECTIVE ACTION-	CCSRECTIVE ACTION-RECOMMENDED REDEBLEM OF PLBTON ROD TO ELIMINATE MOTON CONDITION- AND, REVIEW TEST VIBRATION REDUI EMENTS.	1870M ROD TO EL	THINATE NOTCH COMBI	710H- AIG,	BEVIEW 1	A 193.	IBRATION REGUI	:
HTERALLIC-A/B	SAASAS SWITCH, MTD. PRESSURE	<b>195</b>	UTP-PET 87-44900-824	130169	ğ	5	TES BOURNS 2007171301	
FAILURE MODE-OUT O MEASURING S.E MEGO MED.	OF SPECIFICATION. THE UNITS INSULATION RESISTANCE ACROSS PINS A-B WAS LESS THAN 20 MECOHNS ALLONED GONNS: DURING PROOF CYCLE OF NON-OPR. TENP. TEST. CAUSE OF DISCREPANCY UNKNOWN FAILURE WAS UNCONFIRE.	S INSULATION RE	THE UNITS INSULATION RESISTANCE ACROSS PINS A-B WAS LESS THAN ED MECOMUS ALLONED? CYCLE OF NON-OPR. TENP. TEST, CAUSE OF DISCREPANCY UNKNOWN FAILURE WAS UNCONFIR	A-B MAB	LESS THAN	2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	ECOMB ALLONED E MAS UNCONFIR	
CORRECTIVE ACTION-	CORRECTIVE ACTION-NOME. TESTING INTENT WAS POR COMPARATIVE	POR COMPARATIVE	E DATA CHEV.					
HYDRAULIC-A/B BOOSTER	6944646 BATTCH HTD. PRESBURE.	ý	UTP-PET 87-44800-624	130160	3/ <b>9</b>	, Ç	YES BOURNS 2007171301	
FAILURE MODE-OUT O MEASURING & MEGON D.	AILURE HODE-OUT OF SPECIFICATION, THE UNITS INSULATION MEASURING & NECONDS. DURING HON-OPR. TENT. PROOF	THE UNITS INSULATION RE IN. TOUR. TEST, PROOF CY	RESISTANCE ACROMS PING A-8 NAS LESS THAN RO MEGOHNS ALLONED CYCLE. CAUSE OF DISCREDANCY UNINCHA. FAILURE NAS UNCOPTINE	PARCY USE	LESS TAN SOM: FAI	2 3	EGOHIS ALLONED MAS UNCONFIRME	
CORRECTIVE ACTION-NOME.	HOME. TESTING INTENT WAS FOR COMPARATIVE	FOR COMPARATIVE	E BATA CHET.					
HTDRAULIC-A/B	66A4777 ACTUATOS: A86Y		UTP-PET 87-06350-18	030160	FACTORY	5 9	YES HYDRAULIC RESE NO ARCH 104700-19	Ì
FAILURE MODE-LEAK. THE PISTON ROD BLE 1.	FAILUGE MODE-LEAK, EXTERNAL, DURING A POST VIBRATION TEST WHEN THE ACTUATOR WAS RETRACTED MYDRAULIC OILSAUIRTED FROM The Piston Rod Bleed Mole. This was caused by a cracked Piston Rod, Ref. Task mistory Lob No. 844-0-008 S/N 408-875	SY A CRACKED PE	AFCH THE ACTUATOR NA SETON NOD. REF. TARK	B RETRACTE HISTORY L	D MYDRALE OF NO. 94	0 0 1 1 0	LSGUIRTED FROM	
CORECTIVE ACTION-STOP D UNDER CONTROLLEDASSY, RES OF THIS TYPE.	-BIOP TEST AND SUBMIT BROKEN PISTON BC2 POR PAILURE AMALTSIS. INBURE THAT PUTURETESTS ARE COMDUCTE ASST. COMDITIONS. AN ECP HAS BEEN SUBMITTED TO CHANGE SINE RANDON VIGRATION TEST TO PRECLUDE FAILU	EN PISTON NCO F	POR FAILURE AMALYBIS PED TO CHANGE BINE R	. IMBURE T	HAT FUTUR	KYEST 17 TO	PRECLUDE FAILU	
MYDRAULIC-A-18	69.44.77 ACTUATOR A88YBOOGTER	27.0	UTP-PET E7-00130-18	981050	3/ <b>09</b>	168	YES HYD. RESEARCH 104700-15	<b></b>
			,				1	

FAILURE MCC-LEAK OIL BAUTRIED PROM PISTON ROD BLEED MOLE. CAUSE DETERMINED TO BE DUE TO IMPROPER ASSEMBLY PERMITTI

# GENERAL DYNAHICS CONVAIR DIVISION

19 JUN 1988

DIFFICULTIES REVIEW-HYDRAULIC SYSTEM-AIRBORNE

	DIFFICULTIES REVIEW-EYDRAULIC SYSTEM-AIRDORNE	DRAULIC BYSTEN-AIRBOR	¥			
BYSTEN SUB-BYSTEN	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA BOURCE PART NUMBER	VEHICLE DATE DIF	817E P	WENICLE BITE PRI VENDOR NAME DATE DIF TIME DIF OTH VENDOR PART NO	
COFFECTIVE ACTION-A	ON-ASSURE THAT FUTURE TESTS ARE COMDUCTED UNDER CONTROLLED ASSY. COMDITIONS.	UNDER CONTROLLED ASSY	. 000111	.98		990149
HYDRAULIC-A/B BOOSTER	69A4777 BOOSTER SERVO CYLINDER	UTP-PET 27-08350-13	051010	3/03	YES HYDRAULIC RESE NO ARCH 104700-19	
FAILURE MODE-STRUCT BROKEN. REF. TASK HI CCGRECTIVE ACYION-A	RUCTURAL-AFTER VISRATION ON THE X AXIS THE LOCKING PIN ON THE FINED END LOCKING MUT MAS FOUND TO BE IN HISTORY LOG NO.664-0-007 S/N 409-2751.  CHAIL FUTURE JAITE TO BE TORGUED USING AN ACTUATOR HOLDING NOW, THIS WILL PROPERLY POSITION THE ACTORALE PUTURE JAIL PROPERLY POSITION THE ACTORALE PROPERLY POSITION THE ACTORALE PROPERTY POSITION THE ACTORALE PROPERTY POSITION THE ACTORALE PUTURE JAIL PUTURE J	LOCKING PIN ON THE P	1 MED 610 -	LOCKING NUT	T WAS FOUND TO BE	
	PREVENT DAMAGE TO THE REY WHILE TICHTENING	THE NUT. UNIT REPAIRED AND TEST CONTINUED.	ED AND TE	3T CONTINU	e.	1
HYDRAULIC-A/B	69A4777 BOOSTER SERVO CYLINDER	UTP-PET 27-06550-15	<b>651010</b>	)/g	VES HYDRAULIC RESE NO ARCH 104700-15	1
FAILURE MUDE-STRUCT MAS CAUSED BY THE J 6 NO. 664-0-008 S/N	TRUCTURAL-CURING VIBRATION ON THE X AXIS THE LOCKING PIN AND SAFETY WIRE ON THE FIXED END BROKE. THIS THE JAN NUT LOOSEHING UP AND PERMITTED ROTATION OF THE BODY WHICH BROKE THE REY. REF. TASK HISTORY LOS/N 409-2751.	E LOCKING PIN AND SAF TION OF THE BODY WHIC	ETY WIRE IN BROKE T	ON THE FIX ME NET. REI	TO END BROKE, THIS	
CORRECTIVE ACTION-A	CORFECTIVE ACTION-ALL FUTURE UNITS TO BE TORQUED USING AN ACTUATOR HOLDING TOOL, THIS WILL APPLY PROPER HOLDING POR CE AND MILL FREVENT DANAGE TO THE REY DURING ASSIDBLY. UNIT REPAIRED AND TEST CONTINUED.	ACTUATOR HOLDING TOO	NG TOOL. THIS M TEST CONTINUED.	TLL APPLY	PROPFR HOLDING FOR	
HYDRAULIC-A/B BOOSTER	SLV-A9-10-205-P PRESSURE 6AGE	FAR 27-06562-3	750£ 651014	FACTORY	YES ANERICAN STAND NO AK3 8903-719-1	1.400841
FAILURE MODE-EVTERNAL THAT MOLE WAS DRILLED	FAILURE MODE-EXTERNAL LEAK. LEAKAGE WAS DUE TO A MOLE DRILLED IN THE CASE AND THROUGH THE SEALING O-RING. CONCLUDED That hole was drilled during minifacturing.	LLED IN THE CASE AND	THROUGH T	ME BEALING	O-RING. CONCLUBED	
CORRECTIVE ACTION-F	ION-FAILURE MAS CONFIRMED. GO/C RECOMENDED THAT THE VENCOR TANE GUALITY CONTROL CORRECTIVE ACTION TO ENCE OF THIS DRILLING DISCREPANCY. NAR BLY-AB-10-3678 DOCUMENTS CORRECTIVE ACTION REGUIREMENT.	THAT THE VENCOR TAN	CORRECTIV	CONTROL CO	RRECTIVE ACTION TO EQUIREMENT.	
HYDRAULIC-A/B	224455 PUMP-HTD, BOOSTER	UTP-PET 87-0856-1	451012	<b>5/9</b>	YES VICKERS AAGGS4-R-EA	<del></del>
FAILURE MODE-OUT OF TRANSIENT RESPONSE 1 TO FULL FLOW WAS DAS	FAILURE MODE-OUT OF SPECIFICATION. THE PUMP FAILED TO LIMIT THE CUTPUT PRESSURE TO LESS THAN 4,000 PSIS DURINS THE TRANSIENT RESPONSE TEST. THE MAN, OUT OF TOL, PRESSURE WAS 4825 PSIS, REGULATION OF TRANSIENT PRESSURE FROM NO PLOM TO FULL FLOW MAS 0.14 SEC. THE ALLOMABLE IS 0.08 SEC.	IIT THE CUTPUT PRESSU 4625 PSIG. REGULATIO	NE TO LESS	THAN 4.00	LESS THAN 4,000 PSIG DURING THE TRANSIENT PRESSURE FROM NO FLOW	

GENERAL BYNAMICS CONVAIR DIVISION

19 JUN 1968

	DIFFICULTIES REVIEW-MORAULIC STRIEM-AIMBOHM	AULIC SYSTEM-AIRBON	¥			
#31676 #31649 \$06	TESTALPONT NUMBER FAILED COMPONENT MANE	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	\$17E 13ME 01F	VEHICLE SITE PRI VENDOR NAME DATE DIF TIME DIF OTH VENDOR PART NO	<u></u>
CORRECTIVE ACTION-DESIGNS.	-DESIGN CRITERIA CHANGED BY SCH. RECOMEND THAT FUTURE PET TESTING BE GUIDED BY REVISED REQUIRENEM	THAT FUTURE PET TE	1114 00	PUIDED BY	REVISED REQUIREMEN	•
HYCRAUL IC-A78 BODSTKR	69A4777 ACTUATON-PEEDSACK TRANSDUCER	277-PET R7-08550-15	<b>63100</b>	CONVAIR	YES HYDRAULIC RESE NO ARCH 104750-19	•
FAILURE MODE-OPEN ELECT Y LOG NO. 531-2-040 8/N	FAILURE MODE-OFEN ELECTRICAL. TH <b>e Peeds</b> ick Transducer Opened in a mimus <b>30 decree Pamreme</b> et test. Ref. Task mistor T Log No. 531-2-040 S/N 409-2731.KFW CORRECTIVE ACTION-FAILED TRANSDUCER REPLACED AND TEST CONTINUED.	D IN A MINUS 30 DEG D TRANSDUCER REPLAC	REE FAMES ED AND TES	OFET TEST	. REF. TASA HIBTOM ED.	
CORRECTIVE ACTION-FAILE	CORRECTIVE ACTION-FAILED TRANSDUCER REPLACED AND TEST CONTINUED.	MUED.				
HYDRAUL I C-A/B BOOSTER	6944777 ACTUATOR-ORIFICE	UTP-PET 27-06550-15	<b>431004</b>	CONVAIR	TES HYDRAULIC RESE NO ARCH 104700-15	
FAILURE MODE-OUT OF TOU.	TOLERANCE. DUPING POCT TEMPERATURE SHCCK TEST THE RETRACT PISTON ORIFICE FLOW RATE WAS 2.00 GPM Ref. Task History Log No. 951—2—042 8/N 405-2731.	R TEST THE METRACT: 409-2751.	P1870N OR!	FICE PLOS	RATE WAS 2.00 GPH	
CORRECTIVE ACTION-REVISE	SE SPECIFICATION TO CLARIFY TEST REQUIRENENT, REF. ECP 3442. UNIT IS SATISFACTORY.	IREDENT. REF. ECP &	642. UNIT	Tailtas el	ACTORY.	
HTDRAULIC-4/B BOOSTER	69A4777 ACTUATOR-TRANSDUCER	UTP-PET R7-00350-13	<b>651004</b>	CONVAIR	YES HYDHAUAIC RESE NO ARCH 104700-15	•
FAILURE MODE-OUT OF TOL	JF TOLERANCE, THE PLEDBACK TRANSDUCZR MALL VOLTAGE MAS SO NY. MEG. 18 SONY. MAKIMUM. REF. TASK HIN -111 S/N 409-2751.	VOLTAGE MAB BO BW.	<b>26.</b>	ONV. MAKE	MJM. REF. TASK HIS	
CORRECTIVE ACTION-NOME-CONTINUED THE TEST.	-CONTINUED THE TEST.					
HYDRAU, I C-4/B BOOSTER	.ga4777 actuator-orifice	UTP-PET 27-0830-18	10016	CONV. IR	YES HYDRAULIC RESE NO ARCH 104700-19	
FAILURE HIDE-OUT OF TCE TEMPERATURE TEBT. REF. T	OF TCLEMANCE, THE RETRACT PIBTON ORIFICE FLOW WAS BOUS 6PM. MEG. SOGO 6PM. MAK. DURING FLUID HIGH Ref. Tark History Log No. 881-8-045 B/N 408-2755.	LOW MAS BOUS GPM. NO P-2751	1.00	F.	DURING FLUID HIGH	
CORECTIVE ACTION-HONE-CONTINUED	-CONTENUED THE TEST.					
						<del></del>
					PA4E 0008	

GENERAL DYNAMICS CONVAIR DIVISION

15 JUN 1966

1

	FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	E VEHICLE DATE DIF	114 DIF	PRI VENDOR HANE OTH VENDOR PART NO	
HYDRAULIC-A/B BOOSTER	694477 ACTUATOR-FLOM LIMITER VALVE	UTF-PET ET-08380-18	<b>631003</b>	CONVAIR	YES HYDRAULIC RESE NO ARCH 104700-15	0,00
FAILURE MCDE-OUT OF TOL E REQUIRED 8.8 6PM. ALSO 591-2-040 S/M 409-2751.	FAILURE MODE-OUT OF TOLERANCE. DURING THE PLOW LIMITER TEST AT MINUS 30 DEGREE PAMEMMEIT THE PLOW MAS LESS THAM TH E required 8-6 6Pm, also during static plow gain test the Plom was 3-92 6Pm. Reg. 3-946Pm. Ref. Tabk History Log No. 331-2-040 S/M 409-2731.	KBI AT MIMUB 30 DEGA FLOM WAS 3.5E GPM.	REG. 3.946F	17 THE FLOW W. REF. TAB	MAS LESS THAN THE HISTORY LOG NO.	
CORRECTIVE ACTION-M	CORRECTIVE ACTION-MONE CONTINUED THE TEST.					
HYDRAUL IC-A/B BOOSTER	6944794 HYDRAULIC PRESSURE SMITCH	UT2-PET 27-06543-1	080089	2/9	VES SERVONIC NO EUSE-USOS	•
FAILURE MODE-FAIL DE MG AT LEVELS OF 1100 CORRECTIVE ACTION-ST ADDITIONAL MYTERIALS	FAILURE MODE-FAIL DURING OPERATION-DURING VIBRATION TEST THE SMITCH IN THE UNIT FAILED TO RESPOND TO PRESSURE CYCLI F. AT LEVELS OF 1100 CPS IN BOTH THE T AND Z AXIS, REF. TASK HISTORY LOG NO. 664-0-005 S/N 509-0035. CORRECTIVE ACTION-SIOP AUTHORIZATICA, NO. 00621 REQUESTED SERVONICS TO STOP PRODUCTION NAMERICURING, PROCUREMENT OF ADDITIONAL NYTERIALS, TESTING AND SHIPPENT OF COMPLETED HARMARE, COMMISS IS PROCURING.	THE SMITCH IN THE I. ABE MISTORY LOG NO. BERWONICS TO STOP P.	064-0-005 8	TO RESPOND /N SOB-0035 AMUFACTURIN	TO PRESSURE CYCLI	
ITCHES TO SUPPORT REP	REPLACEMENT OF EXISTING HANDMARE.					
HYDRAULIC-A/B B/XXX TER	694477 ACTUATOR-FLOM LIMITER VALVE	UTP-PET 27-06550-15	650921	CONVAIR	YES HYDRAULIC RESE NO ARCH 104700-15	* 6 * * * * * * * * * * * * * * * * * *
FAILURE MODE-OUT OF LVE OVERSHOOT MAS EA	OF TOLEBANCE, DURING BOTH THE INITIAL ACCEPTANCE TEST AND LOW TEMPERATURE TEST THE PLOM LIMITER E4 MILLISECONDS. RES. IS 15 MILLISECONDS MAX. REF. TASK HISTORY LOS NO. 551-2-039 S/N 409-2751.	CCEPTANCE TEST AND L B MAX. REF. TASK HIS	ON TEMPERAT	URE TEST TH • 551-2-039	E PLOW LIMITER VA 8/N 409-2751.	
CORECTIVE ACTION-NO	CORRECTIVE ACTION-NOME-CONTINUED THE TEST.					
HTDRAULIC-A/B BOOSTER	6944777 ACTUATOR FEEDBACK TRANSDUCER	UTP-PET 27-06550-18	136058	CONVAIR	YES HYDRAULIC RESE NO ARCH 104700-15	100.00
FAILURE MODE-OPEN EL 9 DEGREE FAHRENHEIT P LOB NO. 851-2-038 87	A ELECTRICAL. DURING THE TRANSDUCER GAIN TESY AFTER THE NINUS SE DEUREE FAMPENHEIT SCAR AND MINIS S. IT PROOF CYCLE, IT WAS FOUND THAT PIN A MAS OPEN IN THE PEEDBACK TRANSDUCER COIL, REP. TASK MISTORY S S/N 409-2751.	TEST AFTER THE MINIMAS OPEN IN THE PEED	JS OF DEUREE BACK TRANSD	FAMELMETT UCER COIL.	DECREE FAMERHEIT BOAR AND MINUS S TRAMBDUCER COIL. REF. TASK HISTORY	
COPRECTIVE ACTION-RE	COPRECTIVE ACTION-REPLACE THE PEEDBACK TRANSDUCER AND RERUN TEBT. PERFORM FAILURE ANALYBIB ON FAILED UNIT, ALBO 10	TUN TEST. PERFORM PA	TEURE ANALY	BIS ON FAIL	ID UNIT. ALBO 10	
BOAR TESTS AS PART OF	SANTICS FROM SICER AT MIDIROLLE RESEARCH AND 1D SANVILES FROM VENDOR (CRESENT ENG.) MERE SUBJECTED TO M-RAY AND COLD Soam tests as part of the Failure Amalysis.	IOM VENDOR (CRESENT	ENG.) MERE	BUBJECTED T	D K-RAY AND COLD	

GENERAL DYNAMICS CONVAIR DIVISION

18 1W 1166

	DIFFICULTIES REVIEW-HYDRAULIC SYSTEM-AIRBORNE	NAULIC BYBTEN-AIRBON	¥				
SYSTEM SUB-SYSTEM	TEST/REPORT MUMBER PAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIF	VEHICLE BITE DATE BIF TIME BIF		PRI VENDOR HANE OTH VENDOR PART HO	
HYDRAULIC-A/B BOOSTER	A-88-04-50TT-P BOOSTER ACTUATOR ABBEMBLY, BERYOVAL E7-08550-9 VE	FAN L 27-06350-0	1916	PACTORY	<b>2</b> 8	YES HYDRAULIC RESE NO ARCH 104700-9	•
PAILURE MODE-CONTANIMATION-THE MALL W 1VE ACTUATOR ASSENDEY MALL AND IRREGUL 11 13 ALSO CONCLUDED THIS BLOCKAGE NA TAGE PRESSURE DROPPING ORIFICE O-RING.	FAILURE MODE-CONTAMINATION-THE MALL VOLTAGE WAS 0.43 VOLT, MAXIMUM ALLOMED 18 D.35 VOLT, IT IS CONCLUDED THE EXCESS THE ACTUATOR ASSEMBLY WALL AND IRREGULAR RESPONSE CHARACTERISTICS WERE CAUSED BY A PARTIALLY BLOKKED CONTROL MOZZLE. IT IS ALSO CONCLUDED THIS BLOKKAGE WAS CAUSED BY A THIM-BLOK RUBBER LIKE PARTICLE, MAICH CAME FROM THE C-E FIRST S TAGE PRESSURE DROPPING ORIFICE O-RING.	MAXIMUM ALLONED IS 1871CS NERE CAUSED B 1CK RUBBER LIKE PART	D.35 VOLT. Y A PARTIA ICLE: WHIC	17 18 CO LLY BLOCK H CAME FR	30 5	DED THE EXCESS DATROL MOZZLE. HE C-E FIRST S	
CORECTIVE ACTION-THE N BE STRESSED WITH THEIL URE DROPPING ORIFICE IN	CORRECTIVE ACTION-THE VENDER WAS REQUESTED TO REVIEW BERNOVALVE ASSEDBLY PROCEDURES, AND TO ASSURE MECESSARY CAUTIO H be stressed with their personnel to prevent imadventant generation of rubber contaminants during first stace press Ure dropping orifice installation and assembly.	MALVE ASSEMBLY PROCE	DURES, AME CONTAMBMAN	TO ASSUM	A	CESSARY CAUTIO BY STACE PRESS	
HYDRAUL IC-A/B BOOSTER	6944389 ACTUATOR-FEEDBACK TRAMBDUCER	UTP-PET 27-08550-15	<b>920814</b>	CONVAIR	<b>8</b> Q	YES HYDRAULIC RESE NO ARCH 104700-13	**************************************
FAILURE MODE-ERRATIC OPERA DITTON, THE ACTUATOR FULLY HISTORY LOS NO. 891-E-036	FAILURE MODE-ERRATIC OPERATION-DURING A CYCLING TEST AT NIMUS 30 DECREE PAMENMENT TENDEDIATURE IN A CLOSED LOOP CON Dition, the actuator fuelt extended. This was caused by Pin a of the Peed Back Transducer coil being open. He's task History Log no. 851-2-056 S/N E01-2618.	AL OF THE PEED BACK.	HELT TEMPE TRANSPUCES	RATURE 1N COIL BEI	5 8 <b>4 \$</b>	CO- NET. TASK	
CORRECTIVE ACTION-THE	CORRECTIVE ACTION-THE FEEDBACK TRANSDUCER WAS REPLACED IN THE UNIT AND THE FAILED UNIT WAS HELD FOR THE VENDOR FOR	NE UNIT AND THE FAI	on the salt v	A8 HCLD 7	F 5	NE VENDOR FOR	
HYDRAUL IC-A/B BOOBTER	34.V-99-04-5072-P BOORTER ACTUATOR ASSEMBLY, SERVOVAL 87-06550-17 VE	FAR 87-0850-17	1201	PACTORY	2 9	VES NYDRAULIC RESE NO ARCH 104700-17	:
FAILURE MODE-OUT OF SM AND EXHIBITING EXCESSI 5 THE OSCILLATIONS MOUL	FAILURE MODE-OUT OF SPECIFICATION-DURING FINAL CHECKOUT THE BERNOCYLINGER ASSY MAS REPORTED TO BE EXCESSIVE WOISY AND EXHIBITING EXCESSIVE VIBRATIONS. FAILURE IS CONSIDERED CONTINUED SINCE THE ASSEMBLY APPEARED TO BE MOISY, AND AS THE OSCILLATIONS MOUND CAUSE EXCESSIVE VIBRATION DURING ANY CHECKOUT WITH IOC-SUPPLIED BIGHALS.	CONTINED SINCE THE THE THE THE THE THE THE THE THE TH		TED TO BE APPEARED BIGHALD.	10 M	IBSTUELY HOISY F HOISY, AND A	
CORRECTIVE ACTION-IT WAS ALVE COMPONENT BYMETRY	ON-IT WAS RECOMENDED THE VENDER REVIEW THE CAUSE FOR ASSEMBLY REJECTION TO CORRECT A LACK OF BERVOY THEFIRST FROM PRODUCING A MARGINAL CHECKOUT CONDITION.	CAUSE FOR ASSESSED	NE JECT 10N	TO CORREC	4	-ACR OF BERVOY	
HYDRAULIC-A/B BOOGTER	SLV-A9-04-5071-F BOOM TER ACTUATOR ASSEMBLY, BERVOVAL E7-DBSSG-17 VE	FAR . 27-06350-17	7116	PACTORY	4 9	TE HTDRAULIC RESE NO ARCH 194700-17	•
							_

FAILURE MOS-CONTANIMATION-PACTORY PERSONNEL REPORTED MULL MAS EXCESSIVE DURING CHECKOUT. THE EXCESSIVE MULL CONDITION REPORTED COULD MAYE BEEN CAUSED BY A CONTANIMA MY PARTICLE MOVING INTO AN ORIFICE, RESTRICTING FLOW AND CHANGING THE PRESSURE BALANCE METHIN THE SERVOYALUE.

GENERAL BY WHICE CONVAIR BIVISION

15 JUN 1966

	8181EM 840-878TEM	TEST/REPORT NUMBER  FAILED COMPONENT NAME  PART NUMBER  D	DIP DATA SOURCE	VEHICLE DATE DIF	817E	Z o	VENDOR NAME VENDOR PART NO	
	CORRECTIVE ACTION-VENDOR 18 SERVOVALVES DURING ASSEMBLY.	TION-VENOOR IS TAKING CORRECTIVE ACTION TO PREVENT POSSIBLE GENERATION OF CONTAHINANT PARTICLES WITHIN URING ASSENDLY.	EVENT POSSIBLE SEVER	A7108 OF	CONTANINA	1 2	TICLES WITHIN	•
	HYDRAULIC-A/B BOOSTER	CT-88-10-088 HYDRAULIC ACCUMULATOR-O-RING	FAR 27-06554-3	1910	E	20	VES PEACOCK NO 81310-3J	***************************************
	FAILURE MODE-LEAR INTERNAL- AMINANTS AND DAMAGED O-RING.	FAILURE MOE-LEAR INTERNAL-LEAKED GASEGUS NITROGEN PAST THE INTERNEDIATE PISTON INTO THE MYDRAULIC SIDE DUE TO CONT Minants and damaged o-ring.	E INTERNEDIATE PISTO	M INTO THE	HYDRAUL	¥ 2	DE DUE TO CONT	
	CORRECTIVE ACTION-6D/C R SIDE PROCURENENT INSPECTI MAY HAVE ENTERED THE ACC	CORRECTIVE ACTION-6D/C RECOMENDED TO PEACOCK TO TAKE BUALITY CONTROL ACTION TO PRECLUDE SIDE PROCUREMENT INSPECTION INFORMED THAT THIS UNIT BLD NOT BEAR SURVEY STAMP SA-6S. SITE MAY HAVE ENTERED THE ACCUMULATOR DURING LEAKAGE CHECKS.	ITY CONTROL ACTION 1	10 PRCLUDE 84-65. SITE			RECURRENCE OF PROBLEM. OUT WAS INFORMED THAT MOISTURE	<del></del>
	HYDRAUL IC-A/B BOOSTER	2744555 HYDRAULIC PURP	UTP-PET E7-08568-1	#20#05#	CONVAIR	ž č	VICKERS AA-60994-R-2A	į
	FAILURE MODE-CUT OF SPEC RE TRANSIENTS EXCEEDED AL	DUT OF SPECIFICATION. S/N 400-0443 SPECIMEN FAILED TO REGULATE PRESSURE WITHIN 0.05 SEC. OUTLET PRESSU Exceeded allomble 4000 PSIG. Test conditions-during both 1at and Post Lift proof cycle.	AILED TO REGULATE PRI- PURING BOTH IAT AND	ESSURE WIT	MIN 0.05	MEG.	OUTLET PRESSU	<del></del>
	CORRECTIVE ACTION-FUTURE	HON-FUTURE PET LOT TESTS TO BE COMDUCTED TO REVISED SPECIFICATION REQUIREMENTS AS REVISED BY SCH HO.	REVISED SPECIFICATIO	n reguird	ENTS AS (			
	HTDRAULIC-A/B BOOSTER	2744555 HYDRAULIC PUMP CASE DRAIN FITTING	UTP-PET 27-06560-1	720050	CONVAIR	2 Q	VES VICKERS NO AA-BOSS4-R-EA	404
	FAILURE MODE-LEAK-EXTERN GLED FITTIMGS	EAK-EXTERNAL. 8/N 409-0443 PUPP CASE DRAIN FITTINGS LEAKED DURING PREPARATIONS FOR 1AT. CAUSE LOM TOR	ITTINGS LEAKED DURIN	6 PREPARAT	TONS FOR	IAT.	CAUSE LON TOR	
	CORRECTIVE ACTION-TONGUE	CORRECTIVE ACTION-TORGUE FITTINGS TO 100 IN-LB. CHECK TORGUE ON REMAINING PURPS FROM LOT NO.	UE ON REMAINING PLAN	PROM LOT	6 13			
1	HTDRAULIC-A/B BOOGTER	5LY-A9-04-5064-P BOOMTER ACTUATOR ASSEMBLY, SERVOVAL EY-D855G-Y VE	FAR L E7-08550-7	7116 630 <b>68</b> 4	PACTORY	20	VES HYDRAULIC RESE NO ARCH 104700-7	<del> </del>
1	FAILURE MODE-CONTAMINATION-MULL VOLTAGE R MACTIVE. MAXIMUM VALUES ALLOMED ARE ZERD F NACTIVE. EXCESSIVE ACTUATOR ASSY MULL AND "E PRESSURE DROFFING ONIFICE. THE ONIFICE	FAILURE MODE-CONTAMINATION-MUL VOLTAGE REPORTEDLY MEASURED HIMUS ROD MILLIVOLTS ACTIVE, AND MINUS ROD MILLIVOLTS MACTIVE. MAXIMUM VALUES ALCOMED ARE ZERO PLUS OR MINUS RSD MILLIVOLTS AND ZERO PLUS OR MINUS ROD MILLIVOLTS MACTIVE. EXCESSIVE ACTUATOR ARSY MULL AND IRREGULAR RESPONSE CHARACTERISTICS WERE CAUSED BY A PARTIALLY RESTRICTED APERMED DROFFING ORIFICE. THE ORIFICE MAS PARTIALLY PLUGGED FROM THE UPSTREAM SIDE BY A METALLIC PARTICLE.	REPORTEDLY MEASURED MINUE 280 MILLIVOLTS ACTIVE, AND MINUS 250 MILLIYN PLUS OR MINUS 250 MILLIYOLTS AND ZERO PLUS OR MINUS 250 MILLIYOLTS AND ZERO PLUS OR MINUS 250 MILLIYN IRREGULAR RESPONSE CHARACTERISTICS WERE CAUSED BY A PARTIALLY RESTRINANS PARTIALLY PLUSSED PROM THE UPSTREAM SIDE BY A METALLIC PARTICLE.	TO ACTIVE, D ZERO PLU RE CAUSED AM SIDE BY	AND MIN BY A PAR	HINUS 200 PARTIALLY TALLIC PAI	MILLIVOLTS 1 MILLIVOLTS 1 7 RESTRICTED C	

CENTAL DYNAMICS

9961 MAT 51

CONVAIR DIVIBION
CONVAIR

		DIFFICULTIES REVIEW-MYDRAULIC SYSTEM-AIMBORNE	AULIC STRTEM-AIRBOR	<b>4</b>				ſ
	8787EX 818-8787EX	TEST/REPORT HUMBER FAILED COMPORNT MANE	DIF DATA BOUNCE PART NUMBER	VENICLE DATE DIF	114E BIF OTH		VENDOR NAME VENDOR PART NO	
<b></b>	CORECTIVE ACTION-60/C ASSEMBLY PROCEDURES, AI 10H OF NETALLIC CONTAMIY	CORECTIVE ACTION-6D/C NOTIFIED THE VENDOR OF THIS PAILURE AND 1TS CAUSE. WENDOR NAS RESUESTED TO REVIEW SERVOYALVE ASSENGLY PROCEDURES, AND TOASSURE NECESSARY CAUTION BE STRESSED WITH THEIR PERSONNEL TO PREVENT INADVERTANT GENERATION OF XETALLIC CONTAMINANTS DURING PIRST-STAGE FILTER AND ORIFICE INSTALLATION AND ASSENGLY.	AMD 116 CAUSE. VENDSSED WITH THEIR PER RIFICE INSTALLATION	OR MAS REC BORNEL TO AND ASSEST	WESTED TO PREVENT I	REVI	WENDOR HAS RESULSTED TO REVIEW SERVOYALVE Personnel to Prevent inadvertant generat Tion and assendet.	1
1 = =	HYDRAULIC-A/B BOOSTER	8944361 ACTUATOR-PEEDBACK TRANSDUCER	UTP-PET RT-0830-18	939069	CONAIR	20	VES HYDRAULIC RESE NO ARCH 104700-18	**
	FAILURE MODE-ERRATIC OF TE IN CLOSED LOOP COMDIT DBACK TRANSDUCER REF. T	ATIC OPERATION-THE MENUV VALVE GENERATED AN OSCILLATING SIGNAL MOTCH CAUSED THE ACTUATOR TO OSCILLA CONDITION WITH NO INPUT CURRENT, THIS WAS CAUSED BY AN OPEN CIRCUIT BETWEEN PIN B AND C ON THE PEER FEE, TASK HISTORY LOS NO. 551-2-035 B/N 201-2618.	OBCILLATING SIGNAL CAUSED BY AN OPEN C -2618.	WICH CAL	ACC 774 A	CTUAT B AND	CAMEED THE ACTUATOR TO OSCILLA BETYEEN PIN B AND C ON THE PEE	···
	CORRECTIVE ACTION-REPLY	CORRECTIVE ACTION-REPLACE FEEDBACK TRANSDUCER AND RENUM PET TEST, RETURN TO VENDOR POR PAILURE AMALYSIS.	TEST. RETURN TO WE	apy ace	ATLUME AN	MLY8!	ė	
	HYDRAULIC-A/B BOOSTER	60/C2ZN63-026-DA1037-/L4-THD-02-71 COHPOSITE-FHD/OPL 11 81 ACCUMAATOR 87-06554-3	COMPOSTYE-PRO/OFL 87-06554-3	7111 940818	1	ž õ	PEACOCK 81310-3	•
	FAILURE MODE-INTERNAL LEAK. H	FAILURE MODE-INTERNAL LEAK, M35P, BI ACCUMALATOR, INDICATED A BLOMER THAN NORMAL BECAT AT MPU 870P. THIS SLOW DECAY WAS ATTRIBUTED TO FOOR BLEED.	A BLOKER THAN NORM	AL BECAT !	7. U. P.	ž Š	IS SLOW DECAY	
	STSTEM EFFECT-ERRATIC	RATIC OPERATION.						·
	WENTCLE EFFECT-NONE.							
	CORRECTIVE ACTION-HYDR	CORRECTIVE ACTION-HYDRALLIC FILL AND BLEED PERFORMED.				١		- 1
<u> </u>	MYDRAIL IC-A/B BOOSTER	60/CZZH65-GZ7-DA1050-/L4-THO-G3-71 COMPOSITE-PRD/DFL 11 ACCUMALATOR ET-D6554-8	CONTOOL TE-PRO/DPL. E7-06354-3	7111 050012	I	ę g	NO 51310-3	<b>!</b>
	FAILURE MODE-ERRATIC OF PROPERCY TON THE SYSTEM FROM AIR IN THE SYSTEM	RATIC OPERATION-M35P, 81 MYD, ACCUMULATOR MEASURENENT, EINIBITED INTERNITTENY MEGATINE SPIRIMS UP TO During test, measurenent also einibited a blom decay at mpu stop. It is beliewed that This Resulted System due to a poor fill and bleed.	MEASUREMENT, EINIBITED INTERMITTENT MEGATIME APIRIMS UP TO BLOW DECAY AT MPU STOP. IT IS BELIEVED THAT THIS RESULTED	D 11/10/41	TENT NEW HELIEVED	711 A	SPIKING UP TO HIS RESULTED	<del></del>
	SYSIEM EFFECT-EARATIC	RATIC OPENATION.						
1	VENICLE EFFECT-NONE							
	CORRECTIVE ACTION-HYDR	CORRECTIVE ACTION-HYDRAULIC FILL AND BLEED PERFORMED.						<del></del> 1
	HTDRAIL IC-A/B BONTER	FAR-SLV-SD-1D-283F SOCRTER HYDRAULIC TANK O RING	FAR 27-06551-3	7118	Ę	5 8	7E8 BENGON NO 88836	
-	FAILURE MODE-LEAK-INTER	FAILURE MOE-LEAR-INTERMAL- 648 PRECHANGE WAS LEAKING ACROSS INTERMEDIATE O RIMS BEAL INTO THE WIDRAULIC SIDE.	S INTERMEDIATE O RI	M MAL 1	110 THE W	VORAC	1c 10c.	····
•								_

GENERAL DYNAMICS CONVAIR DIVISION

DIFFICULTIES NEVIEW-HYDRAULIC SYSTEM-AIRBORNE

15 104 1946

	••••					7.20			
WHICLE BITE PRI VENDOR NAME DATE DIP TINE DIP OTH VENDOR PART NO		SOPLEX YES PEACOCK	ALIC SIDE OF THE ACCUPLATOR DUE TO TEFL AND BACKUP RINES PRIOR TO INSTALLATION. ALTER PLATING THICKESS IN SMAP RING CR. WITH THAT USED BY PERCOR.	T	WENT BINILAR ENTRY OF CONTANINAN	COMPLEX YES PEACOCK 948 NO 51310-34	E OF THE ACCUMULATOR BUE TO TEPL	LATING PRIOR TO INSTALLATION. LATING THICKNESS IN SMAP RING OR MAT USED BY PERCOCK.	OR 5-4 80
DIF DATA SOUNCE VEHICLE	PARTICLES FOUND IN THE U	FAR 1510 E7-06554-8K 650607	EUMATIC TO MYDRAULIC BID 1 OF TEPLON GUIDE AND BAC 11 ATE A CHANGE TO ALTER P EDENT COPPATIBLE WITH TH	FAR 1510 E7-De554-3K 650-07 EUMATIC TO HYDRAULIC BIDE C	. TO TAKE HEASURES TO PRE	FAR 650607 27-06554-3K	ELMATIC TO MYDRAULIC BIS	I OF TEPLON GUIDE AND BAC FIATE A CHANGE TO ALTER P ICENERT COMPATIBLE WITH T	909089 1114 THD/DH-311804900 1
TEST/REPORT NUMBER PAILED COMPONENT NAME	CORRECTIVE ACTION-FAILURE NOT CONFIRMED. DUE TO SOME PAINT PARTICLES FOUND IN THE UNIT PACTORY PERSONNEL MERE INSTR Mated to take greater care when attaching lines to the unit.	CT-88-1D-083 HYDRAULIC ACCUMULATOR, G-R1166	FAILURE MODE-LEAK INTERNAL-LEAKING GASEGUS MITROGEN PROM PMEUMATIC TO MYDRAULIC SIDE OF THE ACCUPALATOR DUE TO TEFL ON 1'IVERS BRIDGING THE INTERNEDIATE PISTON O-RIMG.  CORRECTIVE ACTION-GD/C REQUESTED PEACOCK TO CHECK DIAMETERS OF TEFLON GUIDE AND BACKUP RINGS PRIOR TO INSTALLATION.  MITIATE DESIGN CHANGE TO INCREASE RADIUS ON SHOULDER. INITIATE A CHANGE TO ALTER PLATING THICKNESS IN SWAP RING ONE AND AT END OF CYLINDER BORE. USE A METHOD OF OIL DISPLACIBLE WITH THAT USED BY PEACOCK.	DRAULIC-A/B CT-98-10-004  DRAULIC-A/B 1910 CONFLEX YES PERCOCK HYDRAULICACCHULATOR, O-RIM6 R7-00194-3K 650-07 368 NO 51310-34  O RIM6-HYDRAULIC ACCUMULATOR FAILURE MODE-LEAK INTERNAL-LERITM6 64-8EGUS MITROGEN PREUMATIC TO HYDRAULIC SIDE OF THE ACCUMULATOR DUE TO CONT	CORRECTIVE ACTION-60/C INFORMED FACTORY AND FIELD PERSONNEL TO TAKE MEASURES TO PREVENT SIMILAR ENTRY OF CONTAMINAN PARTICLES.	CT-98-10-063 HYDRAULIC ACCUMULATOR, O-RING	PAILURE MOCE-LEAR INTERMAL-LEARING GASEOUS MITROCEN PROM PMEUMATIC TO MYDRALLIC SIDE OF THE ACCUMALATOR DUE TO TEPL On SLIVERS BRIDGING THE INTERMEDIATE PISTON O-RIMS.	COMECTIVE ACTION-60/C REQUESTED PEACOCK TO CHECK DIANETERS OF TEFLON GUIDE AND BACKUP RINES PRIOR TO INSTALLATION. INITIATE DESIGN CHANGE TO INCREASE RADIUS ON SHOULDER. INITIATE A CHANGE TO ALTER PLATING THICKNESS IN SNAP RINS OR OVE AND AT END OF CYLINDER BORE. USE A METHOD OF OIL DISPLACEMENT COMPATIBLE WITH THAT USED BY PEACOCK.	60/CZZM69-028-DA1053-/L4-1MD-01-71 COMPOSITE-PRD/DPL 12
DYSTEN SUS-SYSTEN	CORRECTIVE ACTION-FAILUR UCTED TO TAKE GREATER CAR	HYDRAUL I C-A/B BOOSTER	FAILURE MODE-LEAK INTERN ON FIVERS BRIDGING THE I CORRECTIVE ACTION-60/C R INTIATE DESIGN CHANGE T OVE AND AT END OF CYLINDE	HYDRAULIC-A/B  BOOSTER HYDRAULICCCHULATOR,O- O RING-HYDRAULIC ACCUMU FAILURE MODE-LEAR INTERNAL-LEARING ESSEUS HITRO ANIMAN'S REPORTED THE INTERNAL-LEARING ESSEUS HITRO ANIMAN'S REPORTED THE INTERNAL-LEARING ESSEUS HITRO	CORRECTIVE ACTION-60/5 1	HYDRALL IC-4/8 BUOSTER	FAILURE MODE-LEAK INTERNOM SLIVERS ENIDGING THE 1	CORRECTIVE ACTION-60/C R INITIATE DESIGN CHANGE T OOVE AND AT END OF CYLIND	MYDRAULIC-A/B BOC: TER

FAILURE MODE-INTERNAL LEAR. PRESSURE DECREASES CREENVED ON BOOSTER HYDRAULIC RETURN LANDLING AND TELENGTRY MEASUREM ENTS FOLLCHING COMMIT STOP. MOST LIKELY DUE TO A POOR HYDRAULIC FILL AND BLEED.

GENERAL BYNAMICS CONVAIR BIVISION

<u>.</u> !

1001 157 61

# CONVAIR DIVIBION

			CANAL TRAINING STATE	ļ				
818-815R		TEST/REPORT NUMBER FAILED COMPONENT NEME	DIF DATA BOUNCE PART NUMBER	WENTELE DATE BIF	WONICLE BITE PRI DATE BIF THE BIF OTH	I o	VENDOR NAME VENDOR PART NO	
SYSTEM EFFECT-ERI	HATIC OPERATION.							2
WENTCLE EFFECT-HOME.	DÆ.							
CORRECTIVE ACTION	COMMECTIVE ACTION-BOOSTER HYDRAULIC FILL AND BLEED PERFORMED.	L AND BLEED PERFORME	ė					
HYDRAULIC-A/B BOOGTER	CT-98-04-R23 ACTUATOR O-RIM		FAR 27-08550-13	1910	2	ដូ ខ្	TES HTD RESEARCH ND 104700-13	-
PAILURE MODE-LEA	FAILURE MODE-LEAK; EXTERNAL, BOOSTER ACTUATOR LEAKED 6 DROPS IN 24 MOURS. FAILURE TRACED TO FAULT? O-RIMSS.	TUATOR LEAKED & DROF	'S IN E4 HOURS. FAIL	UME TRACE	0 TO FAUL.	٥ 2	1	
CORRECTIVE ACTION-VENDOR IN PER CENT INSPECTION STARTED.	CORRECTIVE ACTION-VENDOR INITIATED 100 PERCENT INDPECTION OF O-RINGS. THE FAILED O-RINGS NERE INSTALLED BEFORE 100 ER CENT INSPECTION STARTED.	PERCENT INSPECTION O	F O-RINGS. THE FAIL	ED 0-811464	) VERE 114	BTALL	ED BEFORE 100	
HYDRAULIC-A/B	SLV-9D-264-F HYDRAULIC HOSE ASSEMBLY	ABSEMELY	FAR 27-06571-61	71-11	5	88	AEROQUIP 860121-16-3266	1
CORRECTIVE ACTION HYDRAULIC-A/B	CORRECTIVE ACTION-FAILURE NOT CONFIRMED-NO FURTHER ACTION.  DRAULIC-A/B 68A4581  ACTUATOR-BERNO VALVE		OIL WAS FROM EXTERNAL BOUNCE. UTF-PET 660723	AL BOUNCE.	PACTORY	<b>2</b> 8	NE NYDRALLIC RESE NO ARCH 104700-15	**************************************
FAILURE MOE-ERR	FAILUME MODE-EHRATIC OPERATION-THE MENO VALVE GENERATED AN OBCILLATING SIGNAL WHICH CAUGED THE ACTUATOR TO OBCIL E in Closed Loop conditica with no input current. Ref. Taba History Log No. 851-2-026 B/N 408-2750. Corrective action-return to vendor for Pailure Amalybib. After vendor Evaluation Further action may be in order.	MENO VALVE GENERATED AN OSCILLATING INPUT CURRENT. REF. TASK HISTORY LOS FOR PAILURE ANALYSIS. AFTER VENDOR EV	COCILLATINE SIGNAL HISTORY LOG NO. 55	SIGNAL WHICH CAUSED THE ACT NO. 851-2-026 B/N 408-2750. ALUATION FURTHER ACTION NAT	METD THE	ACTUA 30.	SIGNAL MHICH CAUDED THE ACTUATOR TO CACILLA NO. 851-2-028 B/N 404-2750.	
HYDRAULIC-A/B BOOSTER	6944581 ACTUATOR-BERVO VALVE	AVIÆ	UTP-PET 87-06550-18	01100	CONVAIR	20	VES HYDRALLIC RESE NO ARCH 104700-15	•
FAILURE MOE-OUT	OF TOLERANCE, BURING LOW TEMPERATION, TEST THE BERNO VALVE. MAS CAUSED BY THE TORBUE NOTOR BHIFTIMS, REF. TASK HISTORY	DA TEMPERATURE, TEST I MOTOR BAIFTIME. RE		MALL CURRENT THE -0.35 MA. RES. LOS MO. 851-2-023 8/M E04-3570.	MAS -0.5	įį	REG. P.US/MIN BSTO.	<del></del>
CORRECTIVE ACTION	COMMECTIVE ACTION-RETURN PART TO VENEOR FOR VERIFICATION. VENDOR TO INITIATE A STUDY TO DETERMINE CAUSE OF THIS TYP OF FAILURE. DESIGN TO PROVIDE BUFPORT WHEN NECESSARY.	FOR VERIFICATION, Y MEN NECESSARY.	TABOR TO INITIATE A	8TUBY TO	DETERMINE	2	BE OF THIS TVP	
								+

GENERAL DYNAMICS CONVAIR BIVIBION

AROD

2001 NOT ST	CONVAIR DIVIBION	VI BI ON				
	DIFFICULTIES REVIEW-HYDRAULIC SYSTEM-AIRBORNE	AULIC SYSTEM-AIRBORI				
SYSTEM BUG-SYSTEM	TESTARFORT MURER FAILED COMPONENT NAME	DIF DATA BOUNCE PART NUMBER	VEHICLE DATE DIF	317E	VEHICLE SITE PRI VENDOR HANE DATE DIP TIME BIP OTH VENDOR PART NO	
HYDRAULIC-A/B	BOOSTER HYDRAULIC TANK	FAR 27-06551-3	71-1E 650707	A P	YES BENBOW HE'S HO 88856	
FAILURE MODE-LEAK INTERNA	FAILURE MODE-LEAK INTERNAL-LEAKED GAS FROM PREUMATIC BIDE TO MYDRAULIC BIDE OF TANK-POBBIBLE CAUSE CONTAMINANTS.	O HYDRAULIC BIDE OF	TANK-P088	IBLE CAU	E CONTANIMANTS.	
CORRECTIVE ACTION-FAILURE H ALL INSTALLATIONS.	CORRECTIVE ACTION-FAILURE NOT CONFIRMED-20/C ADVISED PERSONNEL TO CONTROL APPLICATION AND RENOVAL OF TORGUE PAINT ALL INSTALLATIONS.	MEL TO CONTROL APPLI	CATION AN	D RENOVAL	OF TORBUE PAINT O	
WTDRAULIC-A/B BOOSTER	60C/BKF85-048/81-401-00-59 ACCUMLATOR	F.1647 87-06554-3	900 69070s	1.96.3	VES PEACOCK NO 91310-8	***************************************
FAILURE MODE-LEAK. B1 HYD	FAILURE HODE-LEAK. BI HYDRAULIC ACCUMULATOR PRESSURE EMIBITED NO PRESSURE DIFFERENCE DURING THE OIL EVACUATION SES Ence.	TED NO PRESSURE DIFF	CREMCE DVI	# # 1	OIL EVACUATION SEA	
SYSTEM EFFECT-POSSIBLE CO	SYSTEM EFFECT-POSSIBLE CONTAMINATION. ALTHOUGH THE FAILUME MODE INDICATES THE POSSIBILITY OF AIR IN THE SOC TER MYD Rimlic system, system performance was satisfactory.	HODE INDICATES THE F	<b>08818</b> 1L1T	OF AIR	IN THE BOC IER HYD	
VEHICLE EFFECT-NONE.						
CORRECTIVE ACTION-NOME.	CORRECTIVE ACTION-NOME. THE POSSIBILITY OF CONTAMINATION WAS NOT CONFIRMED BY ANY OTHER TELEMETRY DATA.	S NOT CONFIRMED BY A	AT OTHER	FLENETRY	DATA.	
HYDRAULIC-A/B Booster	6944389 ACTUATOR-SERVO VALVE	UTP-PET 27-00550-15	<b>83</b> 068	CONVAIR	YES HYDRAULIC RESE NO ARCH 104709-15	180788
FAILURE MODE-OUT OF TOLES 8 3.0 MA. REG. PLUS/MINUS	FAILURE MODE-OUT OF TOLERANCE. DURING THE PROOF CYCLE AT MINUS 3D DEGREE FAMBDMEIT THE BERVO VALVE MULL CURRENT MA 8 3.0 Ma. REG. PLUS/MINUS D.ED Ma. REF. TABK HISTORY LOG NO. 531-2-022 S/M 204-3569.	NUS 30 DEGREE FAMPEN 551-2-022 8/N 204-3	9617 THE :	JERVO VAL	WE MULL CURRENT UN	
CORRECTIVE ACTION-RENORK	CORRECTIVE ACTION-RENORK AT VENDOR. A TEST OF REMAINING (10-11) CYLINDER ASSENBLIES EXHIBITED NO SUCH SHIFT AFTER LD SOAK.	-11) CYLINDER ASSEDE	LIES EWI	OH 627 16	BUCH SHIFT AFTER C	
HYDRAULIC-A/D BOOSTER	A-A9-10-262-F Plexible Hobe	FAR 27-00600-43	149F 650625	PACTORY	VES RESISTOFLER HO REIRES-45	0
FAILURE MOCE-EXTERNAL LEA	FAILURE MODE-EXTERNAL LEAK PROM BUMGED PITTING AT 20 DROPS PER MINUTE.	PER MINUTE.				
;						

COMPECTIVE ACTION-CONSIDERE) A HUMAN INITIATED PAILURE, PERSONNEL ADVISED ON COMBECT PROCEDURES FOR INSTALLING FLEE IBLE HOBES, EMPHASIS PLACED (2) BANGED FITTINS AND NIPPLE FITTINS.

SENERAL BYNAMICS CONVAIR BIVISION

Ŧ

9861 M7 61

A Contract

# DIFFICULTIES REVIEW-MYDRAULIC SYSTEM-AIRBORNE

	DIFFICULTIES REVIEW-MYDRAULIC SYSTEM-AIRBORNE	AULIC SYSTEM-AIRBOR	¥				
3737EN 318-3737EN	TEST/REPORT MUMBER FAILED COMPOMENT NAME	DIF DATA SOURCE PART NUMBER	WENICLE DATE DIF	017E 11HE DIF	PRE CO	WENICLE BITE PRI VENDOR NAME BATE BIF THE BIF OTH VENDOR PART NO	
HTDRAULIC-A/B BOCSTER	BLV-As-10-E7sF PREssurg easE	FAR 27-06962-3	71-19 050 <b>0E</b> 1	FACTORY	YES AMER NO ARD 0903	YES AMERICAN STAND SP884 ND ARD 8803-718-1	•
FAILURE MODE-LEAK. EXTE	FAILUME MODE-LEAK. ENTERNIL. SAGE LEAKED CAUBING LOSS OF ACCUMULATOR PRECHARGE.	CUMALATOR PRECHAPSE	•				
CORRECTIVE ACTION-SURVE	CORRECTIVE ACTION-BURWEY WAS INITIATED TO REJECT GARES NOT HAVING INPROVENENTS MADE SINCE 1943.	HAVING INPROVENENTS	NADE BINE	£ 1943.			
HYDRAUL IC-A/B BOOSTER	69-4388 AC TUATOR-BERWO WALWE	UTP-PET 27-06550-15	130050	CONVAIR	VES HYDRA ND ARCH 10470	VES HYDRAULIC RESE ND ARCH 104700-15	• • • • • • • • • • • • • • • • • • •
FAILURE MODE-OUT OF TOLI PLUS/MINUS D.ED MA. REF.	FAILURE MODE-OUT OF TOLERANCE, DURING THE MENYO VALVE MALL CURRENT TEST A READING OF PLUS D.70 MA. MAS FOUND. RES- PLUS/MINUS D.20 MA. REF. TAZA MISTORY LOS MO. 831-2-017 S/N 410-2755.	CURRENT TEST A READ 410-2759.	# 9 P.	. O. 3	<b>5</b>	POUND. REB.	
CORRECTIVE ACTION-BINCE	CORRECTIVE ACTION-SINCE THIS UNIT WAS A PET SAMPLE IT WAS REJECTED AND SENT TO VENDOR POR DISASSEMBLY AND REMORK.	EJECTED AND BENT TO	04 85 GA	10	10 T	O REMONA.	
HTDRAULIC-A/B BOOSTER	6944-18 ACTUATOR	UTP-PET E7-06390-17	630616	CONVAIR	7ES 27-	VES 27-08550-17 NO 104700-17	<b>8</b>
FAILURE MODE-LEAK-EXTER N SHOMED THO SCORINGS ON GO CYCLES MAICH IS EKCE	FAILUME MODE-LEAK-EXTERMAL-DURING LIFE TEST WHILE THE ACTUATOR WAS CYCLING AT THE RATE OF 0.1 CPS VISUAL EXAMINATIO N SHOWED THO SCORINGS ON THE ACTUATOR ROD APPROXIMATELY 180 DEGREES APART. ALBO ENTERNAL OIL LEARAGE MAS 3 DROPS PER 80 CYCLES WHICH IS EXCESSIVE ACCORDING TO SPECIFICATION. REF. TASK HISTORY LOG NO. SSL-8-018 S/N 408-2743.	TOR WAS CYCLING AT DEGREES APART. ALSO F. TASK HISTORY LOS	THE BATE OF ENTERNAL NO. 391-E	F 0.1 CP OIL LEAK -010 8/N	VISUAL 16E MS 406-274	EXAMINATIO S DROPS PER 13.	
CORRECTIVE ACTION-THE SING REPLACED. THE UNIT	CORRECTIVE ACTION-THE SHAFT 14% HOMED DOWN TO MITHIN 0.001 INCH ABOVE HINIMUM BIANETER ALLCHED ON DRAWING AND THE O RING REPLACED. THE UNIT WAS PUT BACK INTO LIPE TEST AND COMPLETED PET TEST REQUIREMENTS MITHOUT ANY PAILURE. ACCEPT PET LOT 3.	INCH ABOYE HIHIMUN PLETED PET TEST NES	DIANCTER A UIRENENTS	LLOKED OF	DRAWIN	S AND THE OLUME, ACCEPT	
HYDRAULIC-A/B BOOSTER	654410 ACTUATOR	UTP-PET 87-08850-17	8190018	CONVAIR	YES HYDRA NO ARCH 1047	YES HYDRAULIC RESE NO ARCH 104700-17	<b>5</b>
FAILURE MODE-OUT OF TOUL LOWS. TEST EXTEND RETRAC	OF TOLERANCE, DURING THE FLOW LIMITER TEST THE EXTEND AND RETRACT TIME WAS OUT OF TOLERANCE AS FOL Retract res. Winus 30 Desmee F. 0.255 BEC. 0.251 BEC. 0.252 TO 0.250 FLUS 200 DESMEE F. 0.2465EC. E caused by salled actuator piston, ref. 1836 History Los NO. 881-2-011 8/N 406-2749.	THE EXTEND AND MET 0.291 BEC. 0.252 T BK HIBTORY LOS NO.	0 0.280 P. 81-2-011	W 200 TU W 200 DU W 400-1	7 TOLE 1946.	RANCE AS FOL D. E468EC.	

CORRECTIVE ACTION-RENORR ACTUATOR AND RETERT.

GENERAL BYNAHICS CONVAIR UIVIBION

15 JUN 1966

DIFFICULTIES REVIEW-NYDRAULIC SYSTEM-AIRBORNE

M31678 M31648	TEST/REPORT MUSER PAILED COMPONENT MANE	DIF DATA SOURCE PART NUMBER	WENICLE SITE PRI VENOOR NAME DATE BIP 71ME BIP OTH VENOOR PART NO	81 TE	PRI VEN	VENDOR HANE ENDOR PART NO	
HYDRAULIC-A/B BOOSTER	69A4410 ACTUATOR-FLOW LIMITER VALVE	UTP-PET 87-08550-17	02 019059	CONVAIR	VES HYDRA NO ARCH 10470	VES HYDRAULIC RESE NO ARCH 104700-17	•• 10
FAILURE MOE-OUT OF TOLEN	PAILUME HODE-OUT OF TOLERANCE DURING THE PLOM LIMITER VALVE TEST AT MINUS 30 DEGREE PAMMENHEIT, THE EXTEND AND RETR Act time was out of tolerance. Ref. Task History Log No. 551-2-010 B/M 404-2745.	TEST AT MIMUS 30 DI -2-010 S/M 404-2749	IGREE FAMEN	HEST, T	ME EXTEN	D AND RETR	
CORRECTIVE ACTION-HOME.							
HYDRAU.1C-A/B BOOGTER	HYDRALLIC PRESSURE SHITCH, PLUS	UTP-PET 27-06543-1	09 019060	3/ <b>9</b>	VES SERVONICS NO 2092-0805	BERVONICS BUSE-DOOS	•
FAILURE MODE-STRUCTURAL-" 4100 PS16. THE PRESSURE RI	FAILURE MOE-SYRUCTURAL-THE LEE PLUGS WERE FUNED TO CAME. DURING CAME PREMSURIZATION TEST THE FRONT WELD FAILED AT 4100 Psig. The Pressure Reguirement is 5000 Psig. Ref. Tamk History Log No. 532-1-806 B/N 18005.	IRING CASE PRESSUR! HISTORY LOG NO: SIR	14710H 7EST -1-006 8/N 1	THE FRO	MT VÆLD	FAILED AT	
CORRECTIVE ACTION-A VCP NEW TO PENCAR REMAIN DUCT PET.	CORRECTIVE ACTION—A VCP MAS APPROVED TO ALLOW VENDOR TO INCREASE THE NELD BONEDULE ON END CAPS AND LEE PLUSS TO CAS . VENDOR TO REWAX RENAINING UNITS IN PET LOT NO. 1. BUALITY ASSURANCE WILL SELECT ONE UNIT OF REVORKED LOT AND CON UCT PET.	REASE THE WELD BOND T ABSURANCE WILL BE	JULE ON END LECT ONE UNI	CAPS AN	אספאנט ר אספאנט אר	.U68 TO CAB	
HYDRAULIC-A/B BOOSTER	69A1416 Hydraulic Pressure Buitch	UTP-PET 27-06543-1	09 909059	) <b>9</b>	VES BERVONIC NO E082-040	868 VONTC 8082-0801	:
FAILURE MODE-STRUCTURAL-F EMENT IS 3000 PSIG. REF.	FAILURE MOE-STRUCTURAL-DURING CASE PRESSURIZATION TEST THE UPPER LEE PLUG FAILED AT 3600 PSIG. THE PRESSURE REGUIR EMENT IS 5000 PSIG. REF. TASK HISTORY LOG NO. 532-1-005 S/N 10005.	UPER LEE PLUG PAIS 10005.	LED AT 3600	7.	VE PRESS	URE RESULT	
CORRECTIVE ACTION-REPLACE	CORRECTIVE ACTION-REPLACE LEE PLUGS AND NZLD PUSE THEM TO CASE AND CONTINUE TEST.	ASE AND CONTINUE TE	7.				
Hydraulic-a/b Booster	NZ-9D-04-5029-F BOOSTER ACTUATOR ABSY	FAR 27-06530-7	2990 VTR	æ	VES HTDRI	VES HYDRAULIC RESE NO ARCH 104700-1	*
FAILURE MODE-OUT OF SPECI E START OF PITCH PROCRAM, HE MORMAL LEVEL. SINILAR OF OT THE CAUSE OF THE SITE 9	FAILURE MODE-OUT OF SPECIFICATION-BOOSTER MANBER THO ENGINE PITCH ANGLE WAS THEN APPROXIMATELY 30 PERCENT LOW AT THE E START OF PITCH PROGRAM. CONDITION CONTINUED FOR APPROXIMATELY 1.5 SECONDS AND THEN ENGINE PITCH ASRUPTLY NENT TO THE MORNAL LEVEL. SIMILAR CONDITION REPORTLY OCCURRED APPROXIMATELY 1.5 MOURS BEFORE. THE SOOSTER ACTUATOR ASST WAS NOT THE CAUSE OF THE SITE FAILURE. THE ASST HEY ACCURRED ASST WAS NOT THE CAUSE OF THE SITE FAILURE.	PITCH ANGLE UMB TH ELY 1.3 SECONDS AND MATELY 1.5 HOURS BE E AND OPERATIONAL R	EN APPROXIMA THEN ENGINE FORE. THE SC	PITCH PITCH CONTER A	ABRUPTLY CTUATOR	LOW AT TH MENT TO T ASST MAS IN	

CORRECTIVE ACTION-NOT CONSIDERED A PAILURE NO CORRECTIVE ACTION TAKEN.

GENERAL BYNAHICS CONVAIR BIVISION

11 mor 11

TAILURE MODE-SINCTION-ROOMER PARTY MANEER DEPORT MONER OF PART  MONER OF PAR	9901 WOT 81	DIFFICULTIES REVIEW-MYDRAULIC SYSTEM-AIRSCHAE	DRAULIC SYSTEM-AIRSON	n ne				
PATILIZE MODE-STRUCTURAL-DURING CARE PRESURETATION TEST THE LOCKS LEE PLUP FAILED AT BAIG PAIS. THE PRESA  FAILURE MODE-STRUCTURAL-DURING CARE PRESURETATION TEST THE LOCKS LEE PLUP FAILED AT BAIG PAIS. THE PRESA  CORRECTIVE ACTION-REMORN PART.  WYORALLIC-A-A  FAILURE MODE-OUT OF TOLERANCE, BOOSTER WTD ACCUM: PHESS MEASUR. M35P AND WTD. PUPP COUTLET PRESA: MEASUR HAS DOOSTER  FAILURE MODE-OUT OF TOLERANCE, BOOSTER WTD ACCUM: PHESS MEASUR. M35P AND WTD. PUPP COUTLET PRESA: MEASUR HAS DOOSTER  FAILURE MODE-OUT OF TOLERANCE, BOOSTER WTD ACCUM: PHESS MEASUR. M35P AND WTD. PUPP COUTLET PRESA: MEASUR HAS DOOSTER WTD ACCUME THIS MEASUR. M35P AND WTD. PUPP COUTLET PRESA: MEASUR HAS DOOSTER WTD ACCUME THIS MEASUR. M35P AND WTD. PUPP COUTLET PRESA: MEASUR HAS DOOSTER WTD ACCUMENT HAS WERRALD FOR A THE FORTION OF "E.S MEC. THE PUPP COUTLET PRESA: MEASURE.  SYSTEM FFTECT-OPERATOR TOO LOW. BOOSTER WTRALLE FRESA: LOWER THAN MEDINAL FOR A THE FORTION OF "E.S MEC. THE PUPP COUTLET ACTION-HOW  COMMECTIVE ACTION-HOW  A BEND MODELIA  MYDRALLIC-A/A  A BEND MODELIA  MYDRALLIC-A/A  MYDRALL	8781EM 846-8781EM	TEST/REPORT MUMBER FAILED COMPONENT MANE	DIF DATA BOURCE PART NUMBER	VENICLE DATE DIF	410 3411 3128		VENDOR NAME VENDOR PART NO	
FAILURE WODE-STRUCTURAL-DURING CASE PRESUREZATION TEST THE LOGGS.  CORRECTIVE ACTION-REGION PART.  WITHOUT 13 5000 PSIG. REF. TARM HISTORY LOG. 80. 582-1-604 BAN 10003.  CORRECTIVE ACTION-REGION PART.  WITHOUT 15 5000 PSIG. REF. TARM HISTORY LOG. 80. 582-1-604 BAN 10003.  FAILURE WODE-OUT OF TOCERANCE. BOOSTER WITH ACCUM. PRESS MEASAR. H32P AND HTD. PAMP COTLET PRESS. MEASAR H. D. AM HAITTAL MOMENT. PRESS. RES. 81. 80.  FAILURE WODE-OUT OF TOCERANCE. BOOSTER WITHOUT MEASURE LINEARS. H32P AND HTD. PAMP COTLET PRESS. MEASUR H. D. AM HAITTAL MOMENT. PRESS. RES. 81. 80.  FAILURE WODE-OUT OF TOCERANCE. BOOSTER WITHOUT LOGGE GAMP PAMP MOMENT. PAMP COTLET PRESS. MEASUR.  STATEM EFFECT-OFFERTION TOO LOK. BOOSTER WITHOUT LOGGE THAN MOMENT. PAMP MOMENT. PRESS. MEASOR.  WHOLE EFFECT-HOPE.  COMMICTION ACTION-NOC.  WITHOUT ACTION-NOC.  WITHOUT ACTION-NOC.  WITHOUT ACTION-NOC.  WE MOME.  COMMICTION ACTION-NOC.  WE MOME.  COMMICTION ACTION-NOC.  WE MOME.  A BELO ROBIGE AND TO A LOGGE TO TAKE SMEARE AND TO TAKE SMEATER CARE WITH INSTALLING MOMES AND TO PREVENT A BELO ROBIGE.  WITHOUT ACTION-NOC.  WITHOUT ACTION-NOC.  WE MOME.  COMMICTION ACTION-GO/C PERSONNEL WITH CAUTIONED TO TAKE SMEATER CARE WITH INSTALLING MOMES AND TO PREVENT A BELO ROBIGE.  WITHOUT ACTION-GO/C PERSONNEL WITH CAUTIONED TO TAKE SMEATER CARE WITH INSTALLING MOMES AND TO PREVENT A BELO ROBIGE.  WITHOUT ACTION-GO/C PERSONNEL WITH CAUTIONED TO TAKE SMEATER CARE WITH INSTALLING MOMES AND TO PREVENT A BELO ROBIGE.  WITHOUT ACTION-GO/C PERSONNEL WITH ENDAME BANTCH BY TO TAKE TO THE TOTAL	HTDFAULIC-A/B BOOSTER	69A4416 HYDMALK-IC PRESSURE SWITCH	UTP-PET R7-00543-1	<b>*0000</b>	<b>3/09</b>		BER VON C 2082-0801	•
CORRECTIVE ACTION-REMORE PART.  FALLME HODE-OUT OF TOLERANCE, BOOSTER HTG ACCUM, PMESS MEASUR. H35P AND HTG. PMESS R.3 H0  FAILURE HODE-OUT OF TOLERANCE, BOOSTER HTG ACCUM, PMESS MEASUR. H35P AND HTG. PMES ACASAGA R.3 B.5 HC. THE PRESS. MEASUR.  DECATED TO RIGO PSIA DURING HERT 3.5 B.C. SPECIFIC CAUSE URHOGAN BUT STRETOWNEL THE BOOSTER PRESS. HERE SHIP FOR A COMERN HAM HORMAL GROW PSIA) PRAK AT PERSON HAM HORMAL TO USE PRINCIPLE CAUSE URHOGAN BUT STRETOWNELS.  SYSTEM EFFECT-OPERATION TOO LOW. BOOSTER HTGRAUM.C.  C. HO ADVENSE EFFECT HOME.  COMECTIVE ACTION-HOME.  COMECTIVE ACTION-HOME.  HTGRAULIC-A/B  PART BEAN HOMEN LEMANS BOOSTER HTG ASAGAL REAGAN HAM HORMAL PUR A THE PRINCIP THE ACTION-HOME.  FAILURE HODE-LEAK-EXTERNAL-FAILURE OCCURRED BURING CHECKOUT WHEN LEMANS APPEARED PAST SOCKET AND PLET POR HE HOSE.  CORRECTIVE ACTION-GOVE PERSONNEL MEME CAUTIONED TO TAKE GREATER CARE WHICH HAM HINSTALLING HOMES AND TO PRETENT A BENG RADIUS.  A BENG RADIUS.  HYDRAULIC-A/B  H	FAILURE MODE-STRUCT ENENT 18 5000 PAIG.	URAL-DURING CASE PRESSURIZATION TEST T REF. TASK HISTORY LOG NO. 832-1-004 SA	HE LONER LEE PLUS FA IN 10003.	168 A 184	10 P814.	Ě	ATEBUAE AEBUTA	
HYDRAULIC-A/B GOC/BRF85-039/82-401-00-177 FLIGHT 690653 E.5 HO BOCATER  FAILURE HODE-OUT OF TOLEDANCE, BOCATER HYD ACCUM, PHESS HEASING, HSSP AND HYD, PUMP GUTLET PRESS, HEASING H D AN INITIAL WORMAL, PHESS, RISE BUT TO A LOADE (1930 PSIA) THAN HORMAL (1930 PSIA) FLAK AT E.3 BEC. THE P D CCAYED TO ETEO PSIA DURING HERY 1.5 BEC. SPECIFIC GLUGE UNKNOWN BUT STWFOOMIC OF UNMBHALLY HEAVY DEMAN H.  SYSTEM EFFECT-OPERATION TOO LOM, BOCATER HYDRAULIC PRESS, LOMER THAN HORMAL POR A TIME PERSION OF -E.3 BEC.  C. NO ADVERSE EFFECT HOTED ON SYSTEM PERFORMANCE.  WHICLE EFFECT-HOME.  COMMICCITY ACTION-HOME.  COMMICCITY ACTION-HOME.  HYDRAULIC-A/B SLY-89-10-878F PAR BOCATE THAN HORMAL POR A TIME PERSION OF -E.3 BEC.  COMMICCITY ACTION-HOME.  FAILURE HODE-LEAR-EXTERNAL-FAILURE OCCURRED DURING CHECKOUT WHEN LEARANG APPEARED PAST SOCKET AND PLEX POR BOCATE.  HYDRAULIC-A/B SHADAL WORLD TO TAKE GREATER CARE UNERS INSTALLING HOMES AND TO PREVENT A BICH RADIUS.  A BEND RADIUS.  HYDRAULIC-A/B HYDRAULIC PRESSURE BATTCH BY-08549-1 BAD BOCKET AND TO PREVENT A BEND RADIUS.	CORRECTIVE ACTION-RI	ENORK PART.						<del></del>
FAILURE MODE-OUT OF TOLERANCE, BOOATER NYD ACCUAN, PHESS MEASUR, NASH AND WYD, PRUP CUTLET PRESS, MEASUR NY DECAYED DECAYED TO STACK AT E.S. SEC. THE P DECAYED TO RESS. RISE BUT TO A LOGER GISO PSIAN PROMALLY NEAVED PERSON PER	HYDRAULIC-A/B BODSTER	60C/BAF65-039/82-401-00-177	7.197	1770 690603		2 2		927.50
CONTECTIVE ACTION-GOVERNMENT OF A SHARM WITH WITH WITH WITH WITH WITH WITH WITH	FAILURE MODE-OUT OF D AM INITIAL MORMAL. DECATED TO ETEO PSI N.	TOLERANCE, BOOSTER HYD ACCUM, PMESS H PRESS, RISE BUT TO A LCMER 13190 PSIA A DURING NEXT 1.5 MEC. APECIFIC CAUME	EASIR. HSSP AND HTD. () THAN NORML (\$500   UKNOSM BUT STRFTOM	PUMP CUTLU PBIA) PEAK TIC OF UNK	IT PRESS. AT E-3 M DUALLY ME	F	LA HSP INDICAT HE PRESS. THEN ENAND ON BYSTE	
VEHICLE EFFECT-MONE.  CORRECTIVE ACTION-MODE.  HYDRAULIC-A/B BLOOSTER BO-01 FACTORY YES AERO BOUSTER HYDRAULIC MOSE ASSEMBLY EFFORS71-61 69018 NO. 04011  FAILURE MODE-LEAR-EXTERMAL-FAILURE OCCURNED DURING ONECKOUT WHEN LEARAGE AFFEARED PAST SOCKET AND PLEX PO CORRECTIVE ACTION-60/C PERSONNEL MENE CAUTIONED TO TAKE GREATER CARE WHEN INSTALLING MOSES AND TO PREVENT A BEND RADIUS.  HYDRAULIC-A/B MODELS AND TO TAKE GREATER CARE WHEN INSTALLING MOSES AND TO PREVENT A BEND RADIUS.  HYDRAULIC-A/B MODELS AND TO TAKE BRATER BATTER	SYSTEM EFFECT-OPERA C. NO ADVERSE EFFECT	ITION TOO LOW, BOOSTER HYDRAULIC PRESS. I NOTED ON STRIFT PERFORMANCE.	LONER THAN HOUML P	A 114 A 10	815	*	BEC 10 1.5 BE	
HYDRAULIC-A/B BLU-99-10-278F FAR B0-01 FACTORY YES AERO BOUSTER FAILURE HODE-LEAR-EXTERNAL-FAILURE OCCURRED DURING OMECHOUT WEN LEASANE AFFEARED PAST SOCKET AND FLEX PO FEMICINE HODE-LEAR-EXTERNAL-FAILURE CCURRED DURING OMECHOUT WEN LEASANE AFFEARED PAST SOCKET AND FLEX PO FEMICINE HODE-LEAR-EXTERNAL-FAILURE CAUTIONED TO TAKE GREATER CARE WERN INSTALLING MOMES AND TO PREVENT A BEND RADIUS. HYDRAULIC-A/B SPA4416 BOOSTER HYDRAULIC PRESSURE BATTCH BT-005419-1 BS-005416-1 HOD 2005	VEHICLE EFFECT-NOME CORRECTIVE ACTION-N	::						
FAILURE MODE-LEAR-ENTERMAL-FAILURE OCCURNED DURING OMECHOUT WHEN LEARANG AFFEARED PAST SOCRET AND PLEN FOR HOSE.  CORRECTIVE ACTION-60/C PERSONNEL MENE CAUTIONED TO TAKE SMEATER CARE WHEN INSTALLING MOMES AND TO PREVENT A BENO RADIUS.  HYDRAULIC-A/B SSA4416  BOOSTER HYDRAULIC PRESSURE BANTCH 87-08543-1  HO 2085	HTDRAULIC-A/B BOUSTER	SLV-98-10-278F HYDRALLIC HOSE ASSOCIA	FAR 27-06571-61	\$6-01 610818	FACTORY	₹ 2	AEROBUIP 040121-10-0206	•
CORRECTIVE ACTION-60/C PERSONAEL MENE CAUTIONED TO TAKE GREATER CARE WHEN INSTALLING MOSES AND TO PREVENT A BEND RADIUS. HYDRAULIC-A/B SPA4416 UTP-PET 650500 60/C VES SERV BOOSTER HYDRAULIC PRESSURE BATTEN ET-06543-1 ND 2005	FAILURE MODE-LEAR-E ME MOSE.	INTERMAL-FAILURE OCCURRED DURING CHECK	DIT WEN LEARNE APPE	AMED PAST	BOCKET AN	2	X PORTION OF T	
HYDRAULIC PRESSURE SMITCH 27-D0543-1 069500 60/C VES	CCRRECTIVE ACTION-6 A BEND RADIUS.	O/C PERSONNEL NEME CAUTIONED TO TAKE 4	MEATER CARE WACH IN	17ALL 1966 900	1017 131		VENT TOO BHARP	
	HYDRAULIC-A/B BOOSTER	HADRAULIC PRESSURE SMITCH	UTP-PET 87-08548-1	*01010	y 9	_	VES SERVONIC NO EUSE-DOL	

FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME- BURING VIBRATION THE UNIT BAITCH FAILED TO CLOSE BURING ONE PRESSURE CYCLE AT 1100 CPS IN THE T AKIS. THE REQUIRED PRESSURE CYCLES ARE 1875. REF. TASK HISTORY LOS NO. 532-1-007 S/M 4

10-0009

CORRECTIVE ACTION-ALL UNITS OF THE PET LOT SUBJECTED TO A MODIFIED VIBRATION TEST. 1808 TO 8000 CPS. UNITS PERFORME

GENERAL DYNAMICS CONVAIR DIVISION

15 JUN 1966

	DIFFICULTIES REVIEW-MYDRAULIC SYSTEM-AIRSCRNE	IULIC SYSTEM-AIRBORN				
BVBTEN BUB-BYBTEN	TEST/REPORT MUMBER FALLED COMPONENT NAME	DIF DATA BOUNCE PART NUMBER	VEHICLE SITE DATE DIF TIME DIF	BITE PRI	PRI VENDOR NAME OTH VENDOR PART NO	·
D TO THE REQUIREMENTS OF	D TO THE REQUIREMENTS OF THE SPECIFICATIONS. VEHOOR IS TO PROVIDE A PRE-DETERMINED ANOUNT OF OVER TRAVEL FOR ALL ADD	WIDE A PRE-DETERNIN	ED ANDUNT	F OVER TR	VEL FOR ALL ABB	:
HYDRAULIC-A/B BOOSTER	SLV-AB-D4-5020-F ACTUATOR BOOSYER, PLOW LIMITER-O-R 27-08550-17 ING	FAR 87-08550-17	050300 67	FACTORY YES	VES HYDRAULIC RESE NO ARCH 104700-17	:
FAILURE MODE-LEAK EXTERNAL-S/N ED6-368 DRAULIC OIL PAST THE FLOM-LIMITER FORT CTION 61VING MINIMAL EFFECTIVE SQUEETE.	FAILURE MODE-LEAK EXTERMAL-3/N EDG-3601, EDG-3643, EDG-3627, EDG-1907 AND EDG-1713 ABENGLIES WERE FOUND LEAKING MY Craulic oil past the Flom-Limiter Port static Beat. The Primary cause of the Pailures was undersized o-Rimg cross-se Ction Giving Minimal effective squeete.	, 206-1987 AND 206-1 LRY CAUSE OF THE FAI	713 ASSEMBL LUMES MAS L	IES WERE I	COMO LEAKING MY O-RING CROSS-SE	
CORRECTIVE ACTION-VENDER ON MIL-P-5514-D. EOP 305.	CORFECTIVE ACTION-VENDER CHANGE INCREASES O-RING SAUEEZE AND IS IN CONFORMANCE TO THE RECOMMENDATION OF SPECIFICATI On Hilp-5314-D. EOF 303.7H WAS REVISED ON 650710 TO INCORPORATE ADEQUATE STATIC AND DYMANIC LEAR TEST.	) IS IN CONFORMANCE LATE ADEQUATE STATIC	TO THE RECC	PHENDATION CLEAR TE	I OF APECIFICATI	
HTDFAULIC-A/B BOOSTER	69A3166.4 Hydraulic Pressure Baitch	UTP-QUAL/PPT 27-06543-1	930428 CC	CONVAIR VES	VES SERVONIC NO EOSE-0801	
FAILURE MODE-STRUCTURAL- 5000 PSIG. THE CASE PARTE	FAILURE MODE-STRUCTURAL-DURING CABE PRESSURIZATION TEST THE UNITS RUPTURED AT BEOD PSIG. THE CABE SMOULD WITHSTAND 5000 PSIG. THE CASE PARTED AT THE FRONT FACE WELD, REF. TASK HISTORY LOG NO. 532-1-003 B/N 411-0005: 411-0010.	UNITS RUFTURED AT I HISTORY LOG NO. 534	200 Pale.	NE CABE BI 411-0005.	CULD WITHBYAND	
CORRECTIVE ACTION-VENDOR SURANCE WILL VERIFY THE I	CORRECTIVE ACTION-VENDOR HAS TAKEN CORRECTIVE ACTION TO PROVIDE THE PROPER NELDS ON PRODUCTION MARDWARE, QUALITY AS SURANCE WILL VERIFY THE INTEGRITY OF THE NELDS THRU THE PET PROGRAM,	VIDE THE PROPER MELL PROGRAH.	S ON PRODUC	.T.I.OH HARDI	MRE. GUALITY AS	
HYDRAULIC-A/B BOOSTER	60/C22M85-015-DA1047-/LA-7MO-01-71 CONFOSTTE-FRD/DPL 07	COMPOS   TE-FRE/DPL	7107 8- 850418	OH 7-8		70000
FAILURE MODE-INTERNAL LE NG COMMIT SEQUENCE. ABNOR	FAILUKE MODE-INTERNAL LEAK, ABNORMAL BOOSTER HYDRAULIG RETURM PRESSURE CBSERWED ON LANDLING AND TELEMETRY DATA DURI MG COMMIT SEQUENCE. ABNORMAL DATA ATTRIBUTED TO POOR HYDRAULIG BLEED.	AN PRESSURE COOENVE IC DLEED.	GH LANDLIN	E AND TEL	DETAT BATA DURI	
BYSTEM EFFECT-ERRATIC OPERATION.	ERATION.					
VEHICLE EFFECT-NONE.						
CORRECTIVE ACTION-HYDRAU	CORRECTIVE ACTION-HYDRAULIC FILL AND SLEED FERFORNED.					
HYDRAULIC-A/E BOOSTER	MORANLIC PRESSURE BUTTCH	UTP-QUAL/PPT 87-06543-1	*19069	424	YES SCRVONIC NO 2082-0601	
FAILURE MODE-ERRATIC OPE.	PAILUME MODE-ERRATIC OPERATION-DURING VIBRATION THE UNITS CONTACTS OPENED AND CLOSED, REF. TASK MISTORY LOS MO. S3E 1-001 AND 538-1-008.	CHTACTS OPENED AND	1 04EB. REF	. TABK H18	TORY LOG NO. 532	

SCHERAL BYNAHICS CONVAIR DIVIDION

! !

15 JUN 1966

9961 POT SE	DIFFICATION REVIEW-H	DIFFICULTIES REVIEW-HYDRAULIC SYSTEM-AIRSCRIME	¥				ı
8781EN 8UB-8181EN	TESTARFORT MARER FAILED COMPORENT NAME	DIF DATA BOURCE PART NUMBER	WENICLE DATE BIF	817E 71ME 01F	# 6 # 5	WENICLE SITE PRI VENDOR MANE BATE BIF TINE BIF OTH VENDOR PART NO	
CORRECTIVE ACTION-NO	CORRECTIVE ACTION-NOWE-CONTINUED THE 1EST.						***
HTDRAULIC-A/B BODSTER	LV-93-04-5027-F ACTUATOR ASSEMBLY-SCOSTER	FAR 27-06590-7	617069	FACTORY	20	YES HYDRAULIC RESE NO ARCH 104700-1	•
FAILURE MODE-LEAK EX MOT COMFIRMED.	FAILUNE MOE-LEAK EXTERNAL-HYDRAULIC OIL NAS OBSERVED LEARINS PAST THE PISTON SMAFT SEALS. THE FAILUNE REPORTED WAS Mot confirmed.	AKING PAST THE PISTON	BHAFT BEAL	ž	11 C	REPORTED MAS	
CORRECTIVE ACTION-TH	CORRECTIVE ACTION-THE OFFSITE LEARAGE FOLERANCE WAS WIDENED PROM 1 TO 2 DROPS PER 24 HOURS, FROM EACH GLAND UNDER S TATIC PRESSURIZATION, FPOM 1 DROP PER 25 CYCLE TO 1 DROP PER 10 CYCLES PROM EACH GLAND UNDER DYNAMIC CONDITIONS.	NED FROM 1 TO 2 DROPS PER 10 CYCLES FROM EAC	PER 24 HOUNS HE LAND	RS, FROM DER DYNA	EACH	GLAND UNDER &	
MYDEAULIC-A/B	60/CZZN45-0100A-1042-LA-7NO-01-740 COMPOSTTE-FR9/DPL	740 COMPOST TE-PROVDPL	7401 <b>650362</b>	7	, č		
FAILURE MODE-INTERNA MEASUREMENTS AT GIL	FAILUKE MODE-INTERNAL LEAK. ABNORMAL PRESSUAK DECREASES OBSERVED ON BOOSTER MYDRAULIC RETURN LANDLINE AND TELEMETRY Measukements at oil evacuation. Abnormal data caused by poor hydraulic blied».	OBSERVED ON BOOSTER HT POOR HYDRAULIC BLEED.	DRAULIC RE	TURN LAN	Z Z	AND TELEMETRY	·
SYSTEM EFFECT-ERHATIC OPERATIC.	C OPERATIC.						
VEHICLE EFFECT-NOME.							
CORRECTIVE ACTION-BO	CORRECTIVE ACTION-BOORTER HYDRAULIC PILL AL.) BLEED PERFORMED.	HO.			l		
HYDRAULIC-A/B BOOGIER	60C-84F65-016/83-411-00-184 ACCUMALATOR	P.1647 87-0854-3	1140		88	FEACOCR 81310-3	•
FAILURE MODE-ERRATIC OPERATION. B. COSTER EMEINE MOVEMENT AT LIFTOFF.	FAILURE MOCE-ERRATIC OPERATION. BI MYDNAULI: ACCUMALATOR PHEISUME INDICATOD BAG POI P-P OSCILLATIONS DUE TO LARGE D Dater emcine movement at liftoff.	PRESSURE INDICATED SE		OKILLAT	<b>1</b> 8	UE TO LARGE B	
STATEM EFFECT-NOME.	STRIEN EFFECT-NOME. EARATIC OPERATIONS IN THE PORM OF MYDRAULIC OSCILLATIONS MERE BUICKLY DAMPENED.	DRAULIC OSCILLATIONS 1	-	Y DAMPEN	ė		
VEHICLE EFFECT-NONE.							
CORRECTIVE ACTION-NOME.	ME.						
HYDRAULIC-A/B BOOSTER	60C-BKF63-016/83-401-154 BOOSTER ACTUATOR	FL1641 87-06550-7	81000 8761	57 <b>65-3</b> 0.	2 2	YES HYDRAULIC RESE NO ARCH 104700-1	
FAILURE MODE-OUT OF	FAILURE MODE-OUT OF TOLERANCE. A SMALL POSSILE MISALISMMENT OF BOOSTER EMSINES ACTUATORS IN THE YAM PLANE.	HENT OF BOORTER EMBINE	E ACTUATOR	34 H 44	4	PLANE.	

VEHICLE EFFECT-LOSS OF VEHICLE STABILITY, AUTOFILOT CORRECTED AND DAMPED OUT THIS OSCILLATION AFTER AUTOFILOT ACTIV ATION AT D.S. SECONDS.

STRICH CFFCCT-ERHATIC OPERATION. ROLL TRANSIENT AT LIFTOFF NEACHED A PEAK RATE OF B.B DES/BEC.

SENERAL DYNAHICS CONVAIR DIVISION

13 JUN 1966

	DIFFICULTER REVIEW-	DIFFICULTIES REVIEW-WYDRAULIC SYSTEM-AIRBORNE	¥				
3737EN 3-06-3737EN	TEST/REPORT NUMBER FAILED COMPOMENT NAME	DIF DATA BOUNCE PART MUNBER	WEMICLE DATE DIF	817E 71ME DIF	e o m T	VENDOR NAME VENDOR PART NO	
CORRECTIVE ACTION-NO C	ION-NO CORRECTIVE ACTION TAKEN.						•35100
MYDEAULIC-A/B BOOSTER	ETA4217 HVDRAULIC PUMP	UTP-PET 27-06566-1	650311	CONVAIR	42 Q	VICKERS AA-60664-R-EA	• 101
FAILURE MODE-STRUCTURA VIBRATION SMEEP	JTRUCTURAL. S/N 408-5425, NINOR CRACK DEVELOPED IN PUMP CASE NEAR NOUNTING FLANGE DURING Z AXIS (\$ 87) :P	OPED IN PLAR CASE HE.	AR MOUNTING	FLANGE DI	#	Z AKIS (\$ 87)	<del></del>
CORRECTIVE ACTION-DEPT	TON-DEPT 141-5 TO REJECT LOT 15 PUMPS. WE	VENDOR TO INVESTIGATE PROBLEM.	KOBLEH.				
HYDRAULIC-A/B BOOSTER	6944151.3 ACTUATOR-BERNO VALVE	UTP-PET 27-06550-15	30£0\$9	CONVAIR	7 C	YES HYDRAULIC RESE NO ARCH 104700-15	
FAILURE MODE-OUT OF TO T MAS HINUS 0.32 MA. RE ERMAL DAMAGE. REF. TASK	FAILURE MODE-OUT OF TOLERANCE-DURING 160 DEGREE FAHRENGEIT TENPERATURE TEST PROOF CYCLE THE SERVO VALVE MALL CURREN T has minus 0.32 ma. Requirement plus or minus 0.20 mm. A small dent on one side of the valve indicated possible int Ernal Damage. Ref. Task mistory Log munder 556-7-048 S/N 201-2618.	II TEMERATURE TEST ( 1 SHALL DENT ON ONE S 201-2618.	MOOF CYCLE	THE BERW VALVE INDI	O VAL	VE NUL CURREN	
CORRECTIVE ACTION-SINC	CORRECTIVE ACTION-SINCE THIS UNIT WAS A PET SAMPLE IT WAS REJECTED AND SENT TO VENDOR POR PAILURE AMALYSIS AND THE	A REJECTED AND BENT	IO VENDOR PI	OR FAILURE	¥ .	LYSIS AND THE	
HYDRAULIC-A/B BOOSTER	E744217 BOOSTER HYDRAULIC, PUMP	UTP-PET - 27-00500-1	<b>80805</b>	CONVAIR	ă õ	YES VICKERS NO AA-60694-R-EA	£ £ £
FAILURE MODE-OUT OF SP ALCAUBLE 0.050) BECOMD	FAILURE MODE-OUT OF SPECIFICATION, BYN 409-0445 EXCEDED ALLOMBLE 4000 PSIG. PULL PLOM TO NO PLOM INTERVAL 0.040 Allowble 0.050) Becombs. Byn 409-0425 plap performed binilarily on 650303.	ALLOMBLE 4000 PST6 HEARILY ON 650303.	. PUL PLON	5 8 2	ž	TERVAL 0.000 (	
HTDRAULIC-A/B BOOSTER	6943166.4 HTDRAULIC PRESSURE SWITCH	UTP-GUAL/PPT 27-06343-1	20000	3/ <b>9</b>	20	BORE-DOOL	
A RADIATED INTERFERENCE TEST. REF.	FAILURE MODE-OUT OF TOLERANCE- THE UNIT EXCEEDED MIL-1-20000 DPECIFICATION MEDUINEM A RADIATED INTERFERENCE TEST. REF. TASK HISTORY ND. 042-0-DIE 3/N 10073. COMBECTIVE ACTION-COMMIN MILL BEGIEST A AMERICATION DEVIATION PROM THE CHATOMEN.	18-01	COUREMENTS.	ž Ž	7637	REQUIREMENTS AT PINE TEAT PREQUENCIES IN	

PASE OURS

CONVAIR DIVISION

	DIF DATA BOURCE VENICLE BITE PRI VENCOR PART NO PART NO PART NO
	11TE 01F
~	WEMICLE DATE DIF
IULIC SYSTEM-AIRBORI	DIF DATA SOURCE PART NUMBER
DIFFICULTIES REVIEW-HYDRAULIC SYSTEM-AIRSONNE	TES./REPORT WUNGER FAILED CONFOMEN'S NAME
9941 MAP 41	SYSTEM SUG-SYSTEM

371

YES HYDRAULIC SESE

PACTORY

112011

£7-04550-0

ACTUATOR-BOOSTER ACTUATOR ABBY

3L V-09-04-5010-F

HYDRAULIC-A/B

80087ER

104170-8 ARCH

FAILURE HODE-OLT OF SPECIFICATION-PER EOP 308.7 THREE DISCREPANCIES MERE REPORTED-WHEN RUMNING THE PROOF PRESSURE F EST AT 4000 PSIL. THE ACTUATOR EXTENDED HARD OVER AND WOULD NOT RETRACT. ACTUATOR WOULD NOT RESPOND TO IMPUT SIGNALS . SCHE SAFETY WIRE ON THE SERVOYALVE WAS FOUND CUT. FAILURE CONTINUED. MOMENTE IT SHOULD BE CONSIDERED AS INCORRECT DISPOSITION OF PREVIOUSLY KNOWN FAILED MARDMARE THAT SHOULD HAVE BEEN BCRAPPED OR REMOKED.

CORRECTIVE ACTION-MATERIAL REVIEW PROCEDURE WILL BE REVISED.

333

<u> </u>			<u> </u>
PACTORY VES PEACOCK NO 81310-8J	ULIC END OF THE CASE CRACKED A 8. MAS 140,000 CYCLES. REF. TA	THE SHAP RING IS TO BE INSPEC	090EES CONVAIR VES HYDRAULIC NESE OF HOUSE NESE OF 104700-17
723010	S THE HYDRA	BE 140E A10	690EE
UTP-PET B7-06554-8	BE TEST AT 124,400 CYCLE D CAP BHAP RING RETAINER	PET LOT 31 AND 32 15 TO	UTP-FET 27-06550-17
E743676 ACCUMAATOR	FAILURE MODE-STRUCTURAL-DURING LIFE PRETRURE INDULSE TEST AT 124,400 CYCLES THE MYDRAULIC END OF THE CASE CRACKED A ND OFENED UP ABOUT SO PERCENT IN THE AREA OF THE EDD CAP SHAP RING RETAINER GROOMS, MES. MAS 140,000 CYCLES, REF. TA SK HISTORY LOG NO. 842-8-611 S/N 406-1188.	COSFECTIVE ACTION-A SURVEY OF ALL ACCUMILATORS IN PET LOT SS AND SE IS TO BE MADE AND THE SMAP RING IS TO BE INSPEC	6943820 ACTUATOR-BERNO VALVE
HTDRAULIC-A/B PODITER	FAILURE MODE-STRING OFFICE UP ABOUT	CORRECTIVE ACTION-A SURVEY OF AL	HTDRAULIC-A/B BOOSTER

107108

FAILURE MODE-OUT OF TOLERANCE, DURING THE POST MALF STROKE PROOF CYCLE THE SERVO VALVE MALL CURRENT WAS 1.1 MA. RES. USREVENT CURRENT IS PLUS OR HIMUS DIZO MAXIMMA. THIS SHIFT WAS PROSABLY CAUSED BY A TORBUE MOTOR SHIFT, REF. TASK HI CORRECTIVE ACTION-TEST TERNINATED. ACCEPTED PET LOT THROUGH MAS ACTION WITH USAP CONCURRENCE (REF. IN 40537450). STORY LOG NUMBER 556-7-050 8/N 205-5083.

HYDRAU IC-A/B BOOSTER	1-4141.1 MANUAL FLOW LIMITER	C19-9E1 E7-06:66-3	<b>•1804•</b>	CONVAIR	BRORIG CONVAIN YES STEREE ENGR. NC 12660		
FAILURE MOE-OUT OF S SPECIFICATION REQUIRE	FAILURE MODE-OUT OF SPECIFICATION. B/N 410-1171 DURING LCM TEMPERATURE TE.T RESPONSE, FLOW AND FLOW RATE WERE UNDER SPECIFICATION REQUIREMENTS. LEARAGE NOTED PROM INLET PORT WITH 4000 PSI ON OUTLET PORT. THE UNIT HAD DEEN SUBJECTED AND AND AND AND AND AND AND AND AND AN	ING LOW TEMPERATURE TELT T PORT WITH 4000 P81 ON C	REBPONSE, P UTLET PORT.	THE UNIT	OM RATE MERE HAD DEEN BUBJ	UNDER ECTED	

IAT. ð 3 CORRECTIVE ACTION-AS VALVE HAS A HON-CRITICAL PUNCTION DURING FILL AND BLEED ONLY, NO ACTION BY 60/C 18 NECESSARY. COMBITIONS DID HOT REGUL DURING PURINGR TESTING. THERE ARE NO INTERNAL LEARAGE REQUIREMENTS IN THE SPECIFICATION.

GENERAL DYNAMICS CONVAIR DIVISION

11 JUN 1986

		\$ 6 2040					•• 00.			•• 45 ••	
	VEHICLE BITE PRI VENDOR NANE DATE DIF TIME BIF OTH VENDOR PART NO	YES HYD RESEARCH YES 104700-15	ABBY TO TURN F LY. AND CONTIN	YES HYDRAULIC RESE NO ARCH 1047-00-17	TIME MAS 0.20 00 GPH. REG. F		YES HYDRAULIC RESE 897098 NO ARCH 104700-17	ME MAS 0.550 S	•	YES MYDRAULIC RESE SSTORE NO ARCH 104700-17	THE EXTEND THE
	BITE PRI TIME BIF OTH	637 2/00 754	THIS CAUSED NTER REASSENS	CONVAIR YES	ATURE, EXTEND E PLOV IMB 4-		CONVAIR YES	THE EXTEND TO		CONVAIR YES	MEMMEIT BOTH 0.72 0PM. REG
RORNE		<b>012060</b>	J TRANSDUCER.	<b>8</b> 18069	ID HIGH TENTER 10 SECONDS. TH		650212	LATURE BHOCK, RECOIDS. THE P		<b>650212</b>	THE PLON MAS
RAULIC STSTEM-AII	DIF DATA SOURCE PART NUMBER	UTF-PET 87-08550-15	HE INSTALLATION ( RE-OCCURRED ON TO	UTP-PET E7-06550-17	VE TEST WITH PLUI : 18 0.252 TO 9.24 : 8/N 206-1948		UTP-PET 27-04350-17	.WE TEST IN TENTER 1 0.858 TO 0.860 I 1 205-3683.		UTP-PET 87-06550-17	VE TEST AT PLUS : O D.ROG SECONDS. S.
DIFFICULTIES REVIEW-HYDRAULIC SYSTEM-AIRBORNE	TEST/REPORT NUMBER FAILED COMPONENT NAME	49A4777 HYD BOGSTER ACTUATOR	FAILURE MOE-LOCKING JAM HUT WAS NOT TORQUED TIGNT FOLLOWING INSTALLATION OF TRANSDUCER. THIS CAUSED ASSY TO TURN F Reel's and break Locking Pim. The same combition, as above, re-occurred on the same assy after reassembly. AND contin Untion of test.	6944131.2 ACTUATOR-FLOM LIMITER VALVE	FAILURE MODE-OUT OF TOLEMANCE, DURING THE PLOM LIMITER VALVE TEST WITH PLUID MIGH TEMPERATURE, EXTEND TIME MAS 0.29 5 SECONDS AND THE RETRACT THE GASO SECONDS, REG. TIME IS 0.252 TO 9.280 SECONDS. THE PLOM MAS 4.60 GPM, REG. F LOW IS 3.94 TO 4.62 GPM, REF.IASK HISTORY LOG NO. 356-7-D47 8/N 206-1940.	CORRECTIVE ACTION-NOME. RECOMMENDED PET LOT DE ACCEPTED.	69A3BED ACTUATOR FLOW LIMITER VALVE	FAILURE MODE-OUT OF TOLERANCE. DURING THE PLOW LIMITER VALVE TEST IN TEMPERATURE SMOCK, THE EXTEND TIME WAS 0.150 B ECOMDS AND THE RETRACT TIME HAS 0.248 SECONDS. RES. TIME IS 0.252 TO 0.280 SECONDS. THE PLOW MAS 8.72 GPM. RES. FLOW IS 8.6 TO 9.6 GPM. REF. TASK HISTORY LOG NO. 556-7-046 8/N 205-3683.	CORRECTIVE ACTION-NOME, RECOMENDED PET LOT BE ACCEPTED.	69A3BEO ACTUATOR-FLOM LIMITER VALVE	FAILURE MODE-OUT OF TOLEMANCE, DURING THE FLOW LIMITER VALUE TEST AT PLUS 180 DEGREE FAMMENMEIT BOTH THE EXTEND TIN E AND RETRACT TINE WERE 0.247 SECONDS. REG. TIME IS 0.252 TO 0.260 SECONDS. THE PLOM MAS 0.72 0PM. REG. PLOM IS 0.6 TO 0.8 GPM. REF. TASK HISTORY LOS NO. 830-7-DAS S/M EDS-8083.
9941 HOT 41	AYSTEM SUG-SYSTEM	HYDRAULIC-A/B BOOSTER	FAILURE MOE-LOCKING JAM REEL) AND BREAK LOCKING P UATION OF TEST.	HYDRAUL IC-A/B BOOSTER	FAILURE MODE-OUT OF TOLE 9 SECONDS AND THE RETRACT LOW 18 3.94 TO 4.8E GPM.	CORRECTIVE ACTION-NOME.	HYDRAULIC-A/B BCOSTER	FAILURE MODE-OUT OF TOLE ECOMDS AND THE RETRACT TIL IS 8.5 TO 9.6 GPM. REF.	CORRECTIVE ACTION-NOME.	MYDRAUL IC-A/B BODS TER	FAILURE MODE-OUT OF TOLE E AND RETRACT TIME WERE O TO 0.0 GPH. REF. TASK HIG

CORRECTIVE ACTION-NOME.

FAILURE MODE-OUT OF TOLERANCE. DURING THE PLOM LIMITER VALUE TEST AT MIMUS BO DEGREE FAMEDMENT THE EXTEND THE NAS 0.281 SECONDS AND THE RETRACT THE WAS 0.284 SECONDS. REG. THE IS 0.25E TO 0.280 SECONDS. THE FLOM WAS 0.50 GPM. R EG. FLOM IS 8.6 TO 9.6 6PM, REF. TASK MISTORY LOS NO. 888-7-044 B/M EGS-8688.

CORRECTIVE ACTION-RETURN UNITS TO VENCOR FOR RENORS. ALSO MEEK CUSTONER APPROVAL FOR EXTENDED USE OF INTERIM PART &

650E10 CONVAIR YES HYDRAULIC RESE NO ARCH

UTP-PET 87-06850-17

66A3620 ACTUATOR-FLOW LINITER VALVE

7-44800-624 (MFG. BOURNS).

HYDRAULIC-A/B BOOSTER

104700-17

## SENERAL UPNAHICE CONVAIR DIVIDION

DIFFICULTIES REVIEW-HYDRAULIC SYSTEM-AIRBORNE

15 JUN 1966

FALLURE WORE-OUT OF TOLERANCE. DURING INITIAL FLOW LIMITER TEST AT MINUS SO DEGREE PANGEMENT THE EXTEND THE WAS O  2.3 SECONDS AND THE RETRACT THE WAS O.693 SECONDS. REG. THE IS O.692 TO 0.200 SECONDS. THE AVERAGE THE FOR EXTEN  3.0  CORRECTIVE ACTION-THE SPECIFICATION WAS CHANGED TO REPLECT A MORE REALISTIC PERFORMANCE OIL TEST TEMPERATURE OF PLU  CORRECTIVE ACTION-THE SPECIFICATION WAS CHANGED TO REPLECT A MORE REALISTIC PERFORMANCE OIL TEST TEMPERATURE OF PLU  SDAULIC-A/B SAADIST.1  ACTUATOR-LOW LIMITER VALVE REJORATURE THE ACTUATOR WAS CAUSED BY THE FLOW LIMITER VALVE AND THE REQUIRED IN SECONDS IS AS POLLOWS. EXTEND REG. RETRACT TIME  DAALLIC-A/B GASSO D.280-D.252 TEST 2 - 0.378 D.416-0.766 REF. TASK MISTORY LOS NO. 896-7-041 S/N E03-355  CORRECTIVE ACTION-LOWE. TESTING CONTINUED.  CORRECTIVE ACTION-LOWE. TESTING CONTINUED.  HYDRALIC-A/B NOTEST WAS CONTINUED.  CORRECTIVE ACTION-LOWE. TESTING CONTINUED.  RYD-BUAL/PYT 890ESTS WORLD RYD RESAURE BATTOR REGULARY RYDES AS POLLOWS. THE SEXENORIC NOS SEG-7-041 S/N E03-355  CORRECTIVE ACTION-LOWE. TESTING SMATCH RESURED.  BAALLIC-A/B NOS CAUSED BY THE PROMALIC PRESSURE BATTOR REPLACE TO BOALLICANS NOS SEG-7-041 S/N E03-355  CORRECTIVE ACTION-LOWE. TESTING SMATCH RESURED.  BAALLICANS NOS SEG-7-041 SMATCH REGULARY RYDES AS POLLOWS. THE SEXENORIC NOS SEG-7-041 S/N E03-355  CORRECTIVE ACTION-LOWE. TESTING SMATCH RESURED.  BACK TO BOALLICANS NOS SEG-7-041 S/N E03-355  CORRECTIVE ACTUAL CANADAL RYDES AND THE RESURED SMATCH RESURED SMATCH RESURED.  BACK THE SAX SCONDISCONDERS NOS SEG-7-041 S/N E03-355  CORRECTIVE ACTUAL CANADAL RYDES AND THE RESURED SMATCH RESURED SMATCH RESURED SMATCH RESURED.  BACK THE SAX SCONDISCONDES SMATCH RESURED
UTP-PET 690611 CONVAIR TER HYDRALLIC RESE 697059  UTP-PET 690611 CONVAIR TER HYDRALLIC RESE 697059  E7-06150-15 1040-15 1040-15 1040-15  ED IN SECONDS 15 A5 POLLOMS. EXTEND RES. RETRACT TIME  LO IN SECONDS 15 A5 POLLOMS. EXTEND RES. RETRACT TIME  160-0.766 REF. TASK HISTORY LOS NO. 556-7-041 5/N E03-3565.  UTP-6441/PT 650611 60/C YES SERVONIC 666548-1
### ### ##############################
050211 60/C VES SERVONIC NO 2082-0601
650211 66/C VT3 SERVONIC ND 2012-0401

GENERAL DYNAMICS CCHVAIR DIVISION

**3** 0

19 1 WAL 25	CCMAAIR DIVISION	VI B I CM				
	DIFFICULTIES REVIEW-WYDRAULIC SYSTEM-AIRBORNE	AULIC SYSTEM-AIRBORI	<b>w</b>			
STATEM BUB-STATEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE BITE DATE DIP TIME DIP	817E	PRI VENDOR NAME OTH VENDOR PART NO	
CORRECTIVE ACTION-NOME, CONTINUE THE TEST.	CONTINUE THE TEST.					****
HVDRAU, IC-A/B BOOSTER	6644131.1 Actuator-Bervo Valve	UTP-PET 27-06590-13	0 302060	CONVAIR	VES HYDRAULIC RESE NO ARCH 104700-15	•
FALLME MODE-OUT OF TOLE TWAS PLUS D.55 WA. REQUIRE ORTED ON T.M. 556-7-D41 M	FAILURE MODE-OUT OF TOLERANCE-AFTER THE PLUID HIGH TEMPERATURE TEST IT WAS POUND THAT THE SERVO VALVE MALL CURSENT MAS PLUS 0.55 MA. REQUIREMENT PLUS OR NIMUS D.20 MA. THE OUT OF TOLERANCE CAUSED THE UNIT TO FAIL THE PLOM TESTS REPORTED ON T.H. 558-7-041 REF. TASK HISTORY LOS MANDER BSG-7-042 B/N 203-2568.	URE TEST IT WAS POUN OF TOLERANCE CAUSES 4E S/N E03-3568.	D THAT THE	MERVO VA TO FAIL T	LVE MULL CURPENT ME PLOV TESTS REP	
CORRECTIVE ACTION-SINCE THIS UNIT WHO UNIT FAILED AND LOT WAS REJECTED.	CORRECTIVE ACTION-SINCE THIS UNIT WAS A PET SAMPLE IT WAS REJECTED. BUN ONE UNIT FROM LOT AND RERUN PET TESTS. SECO D UNIT FAILED AND LOT WAS REJECTED.	EJECTED. RUN ONE UNI	T FROM LOT	AND REAV	N PET TESTS. SECO	
HYDRAULIC-A/B	LV-98-10-275-F	FAR	l	CTR v	YES AEROBULP	004060
FAILURE MODE-LEAK-EKTERN	MYDRAULIC FLERHORE 27-08571-65 FAILURE MODE-LEAR-EKTERMAL, HORE HAS REJECTED BECAUSE OF REPORTED LEARAGE.	27-06571-65 PORTED LEAKAGE.	<b>63</b> 01 <b>68</b>	2	MO 677025-0-0150	
CORRECTIVE ACTION-LARINOM	CORRECTIVE ACTION-LAKHONAL FAILURE WAS HOT CONFIRMED. HYDRALLIC FLUID MAY MANE DRIPPED ON MOSE PRON ANOTHER CONPONE	LIC FLUID MAY MAVE	DR.I PPED GR	HOME PRO	H ANDTHER CONFONE	
HYDRAULIC-A/B BOCSTER	3LV-9D-04-4933-F ACTUATOR-BOOSTER ACTUATOR O-RING	FAR 27-06350-7	7401 V	a fr	TES HYDRAULIC RESE NO ARCH 104700-1	***************************************
FAILURE NODE-LEAK EXTERNOT CONFISHED.	FAILURE MODE-LEAK EXTERMAL-LEAKAGE MAS REPORTED TO COME PROM THE SHAFT SEAL END OF THE ACTUATOR. REPORTED FAILURE M IT CONFISHED.	N THE BHAFT BEAL ENG	S THE AC	TUA TOR. R	GFORTED FAILURE N	
CORRECTIVE ACTION-NOT A	CORRECTIVE ACTION-NOT A CONFINNED PAILURE, NO CORRECTIVE ACTION TAKEN.	TION TAKEN.				
HYDRAULIC-A/B BOOSTER	684433-8 Actuator-Flow Limiter Valve	U7P-PE7 R7-00630-17	5 <b>62</b> 10 <b>6</b> 0	CONVAIR	WE MYDRALLIC RESE NO ARCH 104700-17	19041
FAILURE HODE-OUT OF TOLE! 0.503 VOLTS/IN. RES. IS 0.	FAILURE MODE-OUT OF TOLERANCE. DURING INITIAL SATISPACTORY PERFORMANCE TEST TH <b>E FEEDBACK TRANSDUCER RATED GAIN WAS</b> 0.503 VOLTS/IN. REG. IS 0.501 VOLTS/IN MAXIMM. REF. TASK MISTORY LOG NO. 856-7-63 <b>2 S/N 206-1949.</b>	TEPORMANCE TEST THE STORY LOS NO. 858-7-	PUEDBACK 632 EVN 20	FRANSDUCE 1-1949.	R RATED CALIN MA	

CORRECTIVE ACTION-NOW-KRROR IN DATA CALL-OUT IN E.O.P. 308.7 FOR TRANSDUCERS. READJUST AND CONTINUE TESTING. RECON MENDED PET LOT BE ACCEPTED.

GENERAL BYNAMICS CONVAIR BIVISION

\*\*\*\*\*\*\*\*\*\*

	****	DIFFICULTIES REVIEW-HYDRAULIC SYSTEM-AIRBORNE	AULIC SYSTEM-AIRBORI	~		İ		_
	# 1 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2	TEST/LEPORT NUMBER FAILED COMPONENT MANE	DIF DATA BOURCE PART HUNDER	VENICLE DATE BIF	817E 71ME DIF	E	VENICLE BITE PRI VENOR PART NO	
1	HTDRAULIC-A/B BOOSTER	4841920-4 Actuator-SMERICAL BEARING.	UTP-8L7 87-06550-7	121000	3/ <b>3</b>	<b>2</b> 0	YES HYDRAULIC RESE ND ARCH 1047DO-1	į
<del> </del>	PAILUME MODE-STRUCTURAL-I CRET. THE FAILUME OCCURNE THE GALLED AND LOCATO SM STRAIGHTENING OUT MAS DU	PAILUME MODE-STRUCTURAL-DURING A BLT-VIBICATION TEST THE SPHERICAL BEARING ASSEMBLY BLIFFED OUT OF THE FIXED END SEET. THE FAILURE OCCURRED IN THE X AXIS VIBRATION AT 84D CPS AT ZERO DEGREES FAMERHEIT. THIS FAILURE WAS CAUSED BY THE GALLED AND LOCKED SPHERICAL BEARING HOUSING A WIGH IMPACT LOADING ON THE ROLLED RETAINING EDGE OF THE BRACKET. STRAIGHTGOUT WAS DUE TO VIBRATION. REF. TASK HISTORY LOG MO. 862-7-037.	ERICAL BEARING ASSETS AS AT ZERO DEGREES F. ACT LOADING ON THE !	MLY MLIY UMEDICTIV	S OUT OF THIS FAI	176 166 166 166 166 166 166 166 166 166	FINED END BRA MAS CAUSED BY 7 THE BRACKET.	
	CORRECTIVE ACTION-ALL FUTURE TESTS MILL INAMMER AS UNITS INSTALLED ON THE VEHICLE.	CORECTIVE ACTION-ALL PUTURE TESTS MILL BE PERFORMED MITH LUBRICATED BEARINGS. THEY WILL BE LUBRICATED IN THE SAME MINER AS UNITS INSTALLED ON THE VEHICLE.	UBAICATED BEARINGS.	THEY MELL	307 30		D IN THE BANK	<b>-</b>
	HTDRALL I C-A/B   BOOSTER	68419EG.3 Actuator-Spherical Bearing	UTP-PRT E7-06350-7	<b>6401E1</b>	y <b>9</b>	ដូច	NO ARCH 104700-1	1
	FAILURE MODE-STRUCTURAL-I TEMPERATURE AT 110 CPS. HICH CONCENTRATED A HIGH ROBE SUPPORT AND THE I.D.	FAILUKE HODE-STRUCTURAL-DURING A PRT-VIBRATION TEST IN THE Y AXIS THE PISTON SMAFT DEVELOPED A RADIAL CRACK AT ROOM TEMPERATURE AT 110 CPS. THE GALLED AND LOCKED SHAFT WAS INCHESTED A HIGH STRESS AT A STRESS RISER CRIGINATING AT THE COPPER BRAZE INTERFACE SCRUCEN THE TRANSDUCER PHICH CONCENTRATED A HIGH STRESS AT A STRESS RISER CRIGINATING AT THE COPPER BRAZE INTERFACE SCRUCEN THE TRANSDUCER PROSE SUPPORT AND THE 1.D. OF THE HOLLOW PISTON ROD CAUSED THE PAILURE. REP. TASK HISTORY LOS NO. 642-7-039 S/M EUS-S 666.	Y AXIS THE PISTON SO RING INCUCED A MIGH & AT THE COPPER BRA E PAILURE, REF. TAS	MAFT DEVEL INFACT LA ZE INTERFA K HISYORY	OPED A RADING ON ACCE BETWEEN LOS NO. (	4 1 1 2 1 2 1 2 2 2 2 2 2 2 2 2 2 2 2 2	CRACK AT ROOM PISTON SHAFT W E TRANSDUCER P -039 S/N EUS-8	
	CORRECTIVE ACTION-ALL FU MANNER AB UNITS INSTALLED R POINT.	CORECTIVE ACTION-ALL FUTURE TESTS WILL BE PERFORMED WITH LUPRICATED SEARINGS. THEY WILL BE LUBRICATED IN THE SAME MANNER AS UNITS INSTALLED ON THE VEHICLE. THE VEHOOR HAS SIVEN ALL INFORMATION FOR HIS EVALUATION OF THE STRESS RISE R POINT.	LPRICATED BEARINGS. EN ALL INFORMATION	POR HIS C	ALUATION	58	D IN THE SAME WE STREES RISE	·····
	HYDRAUL IC-A/B BOOSTER	LV-A9-04-4966-F BOOSTER ACTUATOR ASSEMBLT, SERVOVAL E7-06350-P VE	FAR . 27-00330-7	820116 830118	FACTORY	ž 9	YES HYDRAULIC RESE NO ARCH 104700-1	¥
	FAILURE MODE-CONTANINATI , NAXIMUM ALLONED 18 0.28 ICE NAS PARTIALLY PLUGGED	FAILURE MOE-CONTAHINATION-THE BOOSTER EDWINE E PITCH BERVOCYLINDER MULL PEED BACK VOLTAGE REPORTEDLY MAS 0.32 VOLT . Maximum aliched is 0.25 volt. Pailure was caused by a partially restricted C-5 pressure dropping cripice. The crip Ice was partially plucced from the upstream side by a metallic particle.	CYLINDER MALL PTED TALLY RESPRICTED C- TC PARTICLE.	BACK VOLT	NEC REPOR	9 2 2	FICE, THE ORIF	
	CORFECTIVE ACTION-HYDRAU ABSEMBL AND T	CORFECTIVE ACTÍON-MIDRALLIC REBEARCH REVIEMED PROCEDURES AND TECHNISUES AND NO BELTER ASSENSLY TECHNISUE NAS FOUND. ASSEMSLY PERSONNEL AND THEIR SUPERVISORS MERE BHOMM A "GPY OF THIS FAR AND REMINDED OF THE WEED FOR CLEANLINESS.	D VECHNIQUES AND NO OF THIS FAR AND REM	BETTER A	19696LY T	25	LEANLINESS.	<del></del>
	HTDRAULIC-A/B BODSTER	LV-00-04-9011-F ACTUATOR	FAR 27-06850-17		PACTORY	ð <del>3</del>	NYDRAULIC RESE ARCH 104700-1:	
•	FAILURE MODE-OUT OF TOLE	FAILURE MOE-OUT OF TOLERANGE-DYNAMIC MULL MAS OUT OF TOLERANGE. SERVOYALVE DIS MOT FAIL. REPORTED FAILURE IS THE A ISULT OF A MALFUNCTION WITHIN THE REJECTINS TEST SET.	IANCE. BERVOYALVE DI	• NOT PA1	L. REPORT	2	11 LURE 18 THE A	

GENERAL DYNAMICS CONVAIR BIVISION

18 JUN 1966

331 Mr 41	DIFFICULTIES REVIEW-HYDRAULIC STRIEM-AIRBORNE	NAULIC SYSTEM-AIRDON	¥				
878/EN 848-878N	TEST/REPORT NUMBER FAILED COMPONENT NAME	BIF DATA BOURCE PART NUMBER	VEHICLE DATE BIF	817E PRI 11ME DIF OTH	¥ 5	VENDOR NAME VENDOR PART NO	
CORRECTIVE ACTION-MONE-MERVOVALVE DID NOT FAIL.	MERVOVALVE DID NOT FAIL.						
HTDRAULIC-A/B BOOSTER	69A36ED.1 ACTULTOR PEED BACK TRANSDUCER	UTP-PET 87-D6550-17	980114	CONVAIR	ž 8	HYDRAULIC RESE ARCH \$64700-17	•
FAILURE MODE-OUT OF TULE GAIN MAS 8.19 VOLTS/INCH.	PAILURE MOE-OUT OF TLAKRANCE. DURING TEMPERATURE TEST AT MINUS 30 DEGREE FAMBEMMEIT TWE PEEDBACK TRANSDUCER RATED Gain has 8.19 voltszinch. Reg. Rated gain is 8.08 voltszinch max. Ref. tagk mistory Lob no. 956-7-050 B/M 205-3685.	IINUS BO DEGREE FANN 1 max. Ref. Taba Hill	EDECT THE TOTAL CO.	: FEEDBAC 10. 856-7	780. 080	MADUCER RATED B/M RDS-2693.	
CORRECTIVE ACTION-CONTIN	CORRECTIVE ACTION-CONTINUE INE TEST, UNIT ACCEPTABLE.						
HTDRALLIC-A/B BOOSTER	604-4P265-005/81-402-00-168 8006TER ACTUATORS	FL1647 27-06550-7	1960 850118	ī.	20	VES HYDRAULIC RESE NO ARCH 194700-1	1
FAILURE MODE-OUT OF TOLER ROLL TRANSIENT AT LIFTOFF.	FAILURE MOE-OUT OF TOLERANCE. BOOSTER ENGINE YAN ACTUATOR LENGTHS POSSIBLY NERE CUT-OF-TOLERANCE CREATING A LARGE Noll transient at Liftoff.	LENGTHS POSSIBLY NE	ME OUT-OF.	TOLERANG		ATING A LARGE	<del></del>
SYSTEM EFFECT-ERRATIC OP D MISSILES, THE CLOCKWIS SO EXCEEDED RATE CYRO BAN	SYSTEM EFFECT-ERRATIC OPERATION. THE VEMICLE NOLL TRANSIENT AT LIFTOFF WAS ONE OF THE LARGEST EXPERIENCED ON SERIES D missiles. The clockwise transient exceeded th <b>e 3 degree displacement ford instrumentation bandwidth. Pear rate</b> also exceeded rate cyro bandwidth of 7.8 <b>de6/sec.</b>	T AT LIFTOFF WAS ONE	OF THE LA	AGEST EX TON BAND	MON TO T	NCED ON SERIES PEAK RATE AL	
VEHICLE EFFECT-NONE. TRA	WEMICLE EFFECT-MOME. TRANSIENT PROFERLY BANFED MMEN THE AUTOPILOT STATEM WAS ACTIVATED AT 0.7 SEC.	OPILOT SYSTEM MAS A	CTIVATED /	T 0.7 86	j		
CORRECTIVE ACTION-NOME.							·
HYDRAUL I C-A/B BOOBTER	27A3977 HYDRAULIC PUMP, BOOBTER	UTP-PET 27-06566-1	980111	CONVAIR	<b>2</b> 8	VICKERS AA-GOSSA-R-EA	* £ £ £
 FAILURE MODE-BIRUCTURAL.	FAILUME MODE-BTRUCTURAL. 8/N 409-0410; EXCESSIVE LEARAGE DURING FIRST AXIS VIBRATION BMEEP IMS NOTED AFTER 28 HIN. Earage due to small crack in case.	RING FIRST AXIS VI	AA7100 844	*	9	AFTER 20 MIN.	
CORRECTIVE ACTION-DEPT 141-3 TO ITY AND PROVIDE CONFARISON DATE.	ION-DEPT 141-3 TO PERFORM RETEST ON TWO (E) ABDITIONAL UNITS FROM LOT 13, TO BETERMINE LOT ACCEPTABLE.	DDITIONAL WITH PRO	H LOT 13.	TO DETEN	#	LOT ACCEPTABIL	

FAILURE WODE-OUT OF SPECIFICATION. B/N 409-5430. PEAR TRANSIENT PRESSURES WERE 4100 TO 4800 PSIG, ALLOMBLE IS 4000 PSIG. NO FLOW TO FULL PLOW TIME IS 0.187 DECOMDS, ALLOMBLE TIME IS 0.08 SECOMDS.

641220 COMVAIR YES VICKERS NO AA-80894-R-EA

UTP-PET 87-00988-1

ETA1977 HYDRAULIC PUMP

HTDRAULIC-A/B

CONVAIR BIVISION

9901 557 81

		DIFFICULTIES REVIEW-NYDRAULIC SYSTEM-AIRBORNE	AULIC SYSTEM-AIRBOR	¥			ł
	3737EH 346-3737EH	TEST/REPORT MUMBER FAILED COMPONENT NAME	DIF DATA BOUNCE PAR! NUMBER	WENICLE DATE DIF TI	817E PRI 71ME 01F OTH	II VENDOR NAME IN VENDOR PART NO	
80	CORRECTIVE ACTION-BUBNIT	N-BUBHIT ECP 7869 TO REVISE TEST REQUIREMENTS TO PRACTICAL LEVELS.	ITS TO PRACTICAL LEW	£1;			•••
HYDRAUL BOOSTER	HTDRAULIC-A/B BOOMTER	69A3166.4 HTDRAULIC PRESSURE SMITCH	UTP-QUAL/PPT R7-06543-5	1 641229	<u> </u>	YES BERYONIC NO 2008-00-1	•
See See	FAILURE MODE-STRUCTURAL-DURING UNTING BLOCK BROKE ALLOWING THE DEP S/M 10078.	2 ANIS VIDRATION BAEEP CARE TO FALL PREE PROM	AT 330 CPS. THE SPOT WELDS MHICH MOLD THE UNIT CASE TO THE MO THE HOUNTING SLOCK, REF. REFER TO TASK HISTORY LOS NO. 642-7-	DS WHICH HOL REPER TO TA	D THE LINE SER HISTORY	T CAME TO THE P	
§ *	RECTIVE ACTION-THE VE INERT GAS MELD STITE	CORRECTIVE ACTION-THE VENDOR IS TO IMPROVE THE METHOD OF ATTACHMENT OF HOUNTIMS BARE TO THE IMSTRUMENT BODY, BY USI ME & IMERT GAS MELD STITCHES AT THE ATTACHING FOINT.	TACHENT OF NOUNTER	4 64 MAG 10 11	E IMPRO	Cut Boby, By W	
HYDRAUL BOOSTER	HTDRAUL IC-A/B BOOSTER	6943146.4 HYCZAULIC PRESSURE BATTCH	UTP-QUAL/PPT 87-06543-1	9 92179	60/C YES	YES BERYONICS NO 2052-0401	****
FAIL EV OF VIBRA	PAILURE MODE-ERRATIC OPE EY OPENED UP AT RESONAUT VIBRATING AT A MIGH PRESU	FAILURE MODE-ERRATIC OPERATION-DURING VIBRATION, PARTICULARLY IN THE Y AXIB AFTER THE WAITS MAD CLOSED MORMALLY, TH TY OPENED UP AT RESOURNY POINTS. THE CAUSE OF THE INDICATED OPEN MAS PROBABLY DUE TO THE MICROSMITCH CONTACT POINTS TRAATING AT A HIGH PRESUENCY, REF. TARK HISTORY LOS NO. 862-7-036 S/M 10058- 10078- 10188-	NY IN THE Y AXIS AF OPEN NAS PROSABLY D 1-7-036 S/N 10038- S	173 74E UNIT	CROSES TO	MED MORNALLY, 1 CONTACT POINTS	
HTDRAUL BOOSTER	HYDRAUL IC-A/B BOOSTER	8LV-8D-04-4861-F ACTUATOR-BOOSTER,O-RIMS	FAR 87-08850-7	7107 678		TE NYDRALLIC RESE NO ARCH 104700-1	
FAT.	URE MODE-LEAK EXTERN INNER PISTON-SMAFT 6	FAILURE MOE-LEAK EXTERNAL-LEARAGE REPORTEDLY OCCURNED AT THE SMAFT ADJUSTMENT MOT, INDICATING LEARAGE PAST THE FOR MARD INMER PISTON-SMAFT BEAL, FORMARD PISTON SMAFT SEAL LEARAGE IS ATTRIBUTED TO A BLIGHTLY HICKED FORMARD SEAL O-RI MG.	AT THE BHAFT ADJUSTMENT MAT, INDICATING LEARAGE PAST THE FOR LEARAGE IS ATTRIBUTED TO A BLIGHTLY MICKER FORWIND SEAL G-RI	MAT. INDICA	ATIM LEAN	COLUMB SEAL OF	
COPR	COPRECTIVE ACTION-60/C I	COPRECTIVE ACTION-60/C INITIATED WENDER BUMLITY CONTROL CORRECTIVE ACTION, REGUERTING THE WENDER IMPROVE BUMLITY CO ITACL TO PRECLUDE RECURRENCE OF THE FAILURE REPORTED.	INECTIVE ACTION, MEN	UESTINS THE	WENDER 11	PROVE QUALITY	0
HYDRAUL BOOSTER	HYDRAUL IC-A/B BOOSTER	69A31664 HYDRALLIC PRESSURE SULTCH/O-RIM	UTP-BUAL/PPT R7-06548-1	9 11819 K	0# 13/ 3/ <b>0</b> 9	YES SERVONIC NO BOSS-0001	
7 2 2	PAILUNE MODE-OUT OF TOLE CTOR BECAME SWOLLEN AND B	OF TOLERANCE. BURING THE 72 HOUR 275 DEGREE BOIL INMERSION TEST THE O-RIMG IN THE ELECTRICAL COMME. En and BPLIT in Three units. Ref. Task History LOS NO. 662-7-028 B/N 18058;10078;10108.	IE BOIL INMERBION TE	81 THE O-RIC ES 8/N 18081	* IN THE	ELECTRICAL COM	

CONVAIR BIVISION

15 JUN 1966

		DIFFICULTIES REVIEW-HYDRAULIC SYSTEM-AIRDORNE	RAIM. IC SYSTEM-AIRBOR	<b>¥</b>				
	8737EM 8UB-878TEM	TEST/REPORT MUMBER PAILED COMPONENT NAME	DIF DATA SOUNCE PART NUMBER	WEHICLE DATE DIF	11 E D2F	# N	BITE PRI VENDOR NAME	
	CORRECTIVE ACTION-THE VENDOR WILL AND TO REIROFIT ALL EXISTING UNITS.	CORRECTIVE ACTION-THE VENDOR WILL HE REQUIRED TO PROVIDE NEW O-RIMSS OF SUITABLE MATERIAL. TO CHAMSE THE DRAWINGS, ND TO REJROFIT ALL EXISTING UNITS.	IN O-RIMES OF SUITABL	E MTERIA	1. 70 CP.		HE DRAUTHES,	
	HTDRAUL IC-A/B BOOSTER	MAIDED.4 ACTUATOR BERVO VALVE	UTP-PRT 87-06550-7	11811	y/9	20	VEB HYDRAULIC RESE NO ARCH 104700-1	•
	FAILURE MODE-OUT OF TOLES 49 CHMS. REGUIRED EIDD MAI M. REF. TASK MISTORY LOG M	FAILURE MODE-OUT OF TOLERANCE- DURING INITIAL ACCEPTANCE TEST THE SERO VALVE COIL RESISTANCE FROM PIN A TO C MAS ES. 48 OHHS. REQUIRED ELOD MAXIMMS. FROM PIN A TO B AND B TO C WAS 1074 AND 1079 CHMS RESULRED ELOD MAXIMMS. FROM PIN A TO B AND B TO C WAS 1074 AND 1079 CHMS RESULRED. MENTIND H. REF. TASK HISTORY LOS MO. 556-7-014 S/N E10-370E.	EST THE BERO VALVE CO MS 1074 AND 1079 CH	ML RESIST B RESPECT	ANCE PRO IVELT. RI	TOUTHE	A TO C MAS 21. D 1050 MAXINU	
	CORRECTIVE ACTION-THE ABO THE ALLOMABLE RESISTANCE.	CORRECTIVE ACTION-THE ABOVE UNIT 18 ACCEPTABLE DUE TO A BUBBEQUENT MEVISION TO DESIGN SPECIFICATION UNION INCREASED. THE ALLOMBLE RESISTANCE.	SECRUENT REVISION TO	5	ECIFICATI	3 8	ICH INCREAPED	
	HYDRAULIC-A/B	69419E0.3 Actuator-servo valve	UTP-PRT 27-20330-7	103111	y <b>3</b>	20	YES MYDRAULIC RESE NO ARCH 104700-1	-
	FAILURE MODE-OUT OF TOLER S. REQUIRED 2100 MAX. FROM 3668.	FAILURE MODE-OUT OF TOLERANCE-DURING INITIAL ACCEPTANCE TEST THE SERVO COIL RESISTANCE FROM PIN A TO C MAS 2114 OHM 3. Required 2100 Max. From Pin A To B MAS 1041 OHMS. REQUIRED 1050 MAX. REV. TASK HISTORY LOS NO. 558-7-013 S/H E05- 3448.	IT THE BERVO COIL ME! ID 1050 MAX. NEP. TAI	HETANCE P	106 PZR / 106 BD.	10 0	WS 2114 OH -013 2/N 205-	
	CORRECTIVE ACTION-THE ABO THE ALLOMBLE RESISTANCE.	CORRECTIVE ACTION-THE ABOVE UNIT IS ACCEPTABLE DUE TO A BUBBEBUENT REVISION TO DESIGN SPECIFICATION WICH INCREASED THE ALLOMBLE RESISTANCE.	BEBUENT REVISION TO	DESIGN ST	ECIPICATI	3 8	ICH INCREASED	
	HTDRAULIC-N/B BOOSTER	ETASSOS VAM LÍMEAR POSÍTICH TRANSDUCER	UTP-PET E7-04E11-1	41100	y/9	25	TES CRESCENT NO HC-679-4E	1
	FAILURE MODE-SMORT (CLECT) RETURNED TO MORMAL.	FAILURE MODE-SMORT (ELECTRICAL), DURING PET 500 DEGREE F TENFERATURE TEST, WAEN TENFERATURE WAS DECREASED, VOLTAGE IETURNED TO MORMAL.	D <del>O</del> CRATURE TEST, WAS	TENTERAT		ECREA	AED. VOLTAGE	
		CORRECTIVE ACTION-SPECIFICATION TO CHANGE 500 DEGREE P TEMPERATURE TEST REGUIREMENT, WHICH CAUSED SHORT CIRCUIT.	ERATURE TEST REGUIRE	DENT, WI	CH CAUBER	. 5	T CIRCUIT.	
	MYDRAULIC-A/8 SOOSTER	84 V-80-10-273F Hydraulic Accumlator, O-ring	PAR 27-06564-3	7106 841187	e 5	20	YES PEACOCK EMS. NO 51310-3	<del> </del>
2	FAILURE MODE-LEAK-INTERNAL MOTALLATION.	FAILURE MODE-LEAR-INTERMAL ACCUMULATOR WAS POUND LEARING OME INTO MYDRAULIC SYSTEM BECAUSE OF SUS-STANDARD O-RING 1 Betallation:	E INTO HYDRAULIC BY	TEN BECAU	3 5 2	-STAN	DANG G-RING 1	

SEMERAL BYNAMICS CONVAIR BIVISION DIFFICULTIES REVIEW-HYDRAULIC SYSTEM-AIRBORNE

ţ .

S. court to A

15 JUN 1900

DATE BIF TIME BIF OTH WENDOR PART NO	VES PEACOCK EMS. 000703	STANDARD O-RING I	TES PEACOCK ENG. 090171 NO 51310-3	TE AMERICAN STD P 000178	OF CALIBRATION.	WES HYDRAULIC RESE GOSTSS ND ARCH 104700-1	IMPTABLLITY WAS CA
	# 55 A.	BECVINE CF BUR	44 A	TEN BECAUSE OF BUB	UBE MEME 1004, OUT	I	CIAMAIR, THIRI
PART NUMBER DA		HINTO MYDRAULIC BYBTD	FAR 7104 27-06554-3 64111	INTO HYDRAULIC SYSTEM  IMSTALLATION.  FAR TY-  ET-00562-3 Gai	IDRIBTICS OF BOUNDON TO		COLLEGE AND SECULATION OF THE
SUB-STREET FAILED COMPOSENT MANE		FAILUME MODE-LEAK-INTERNAL ACCUMULATOR WAS POUND LEAKING DUR INTO MYDRAULIC SYSTEM BECAUGE OF SUB STANDARD O-RING I Stallation. Corrective action-vendor was notified regarbing Poor o-Ring Installation.	SLV-90-10-273F HYDRALLIC ACCUMALATOR, O-RIM	FAILURE HOSE-LEAR INTERNAL-ACCUMALATOR WAS FOUND LEARING SNE INTO HYDRALLIC SYSTEM SECAMES OF SUB STANDARD O-RING IS STALLATION.  CORRECTIVE ACTION-VENDOR WAS NOTIFIED RESAMBING FOOR O-RING INSTALLATION.  DRAULIC-A/S SLV-AS-10-E71F FAR PAR PAR PA-15-15 FACTORY WES AMERICAN STD PACTORY WES AMERICAN STD PACTORY WES AMERICAN STD PACTORY.  ACTION OF THE CONTENT OF THE SAME CASE SP-08562-3 643.85 HO ROLL TO ACTION ADDRESS.	FAILUME MODE-OUT OF TOLERANCE, EASE READ 300 PAI LOM-CHARACTERISTICS OF BOUNDON THEE WERE LOM, OUT OF CALIBAATION. Corrective action-contractor advised personnel on Calibaation Practices and Regulfnedits.	SLV-80-04-4958F BOOSTER ACTUATOR ASSEMBLY, BERVOVAL E7-08550-7 VE	Control and the second second seconds and the second of the second seconds and the second seconds and the second seconds and the second seconds and the second seconds and the second se
CORRECTIVE ACTION-WINDOR	HYDRAU IC-A/B BOOSTER	FAILURE MODE-LEAR-INTERN MSTALLATION. CORRECTIVE ACTION- WENDOR	HTDRAULIC-A/B BOOSTER	FAILURE MODE-LEAK INTERN N9TALLATION.  CORRECTIVE ACTION-VENOOR  WYDRAULIC-A/B BOOMTER	FAILURE MODE-OUT OF TOLE CORRECTIVE ACTION-CONTRA	HTDRAULIC-A/B BOOSTER	

COMMECTIVE ACTION-HYDRAULIC RESEARCH ANSWER TO YEAR TEDGES AND TO RAR BLY-80-64-8019 SAID EFFECTIVE IMMEDIATELY CL OSER SURVEILLANCE WILL BE PROVIDED DURING MANUFACTURE TO ABSURE PROPER POLE PIECE SPACING. ALDO: ALL MASHETS ARE INS PECTED FOR A HIMIMUM FIELD STRENGTH OF 800 SAUSS AFTER PABRICATION.

SENERAL DYNAMICS CONVAIR DIVISION

9961 HOT 41	COMANIE DIAIDON	VIBION				
	DIFFICIATIES REVIEW-HYDRAULIC SYSTEM-AIRBORNE	NAULIC SYSTEM-AIRBOR	¥			
8181EN 846-8181EN	TEST/REPORT HUNGER FAILED COMPONENT NAME	DIF DATA BOUNCE PART NUMBER	WHICLE DATE DIP	11 TE 019	2 to 2 to 3 to 3 to 3 to 3 to 3 to 3 to	WENTELE BITE PRI VENDOR MAINE DATE BIP 71HE BIP OTH VENDOR PART NO
HTDRAULIC-A/B BOOSTER	A1-4MO-03-210	COMPOSE TE-FRB/BPL	21.00 20.119	A-1	22	
FAILURE MODE-LEAK-EXTERN	FAILUME MODE-LEAK-EXTERNAL, MIGH PRESSURE HYDRAULIC LING CRACKED AND LEARING EXTERNAL TO THE GGE BOOSTER HPU.	TACKED AND LEAKING E	ITERNAL TO	THE 640	B0087ER	# <b>P</b> C.
SYSTEM EFFECT-ERRATIC OF	STATEM EFFECT-ERRATIC OPERATION. ABNORMAL PRESSURE DATA OBSERVED.	ERVED.				
VEHICLE EFFECT-NOME.						
CORECTIVE ACTION-64E LINE REPLACED.	ME REPLACED.					
MYDRAULIC-A/B BOOSTER	ALV-88-10-270F ABSOLUTE PRESSURE BATTCH	FAR 67-44900-664	71-11	FACTORY	NO BOURNS NO 200717	BOURNS E007171301
FAILURE MODE-OUT OF TOLE	FAILURE MODE-OUT OF TOLERANCE. BAITCH WAS POUND BATISFACTORY, AND FAILURE WAS TRACED TO A FAULTY MYDRAULIC TEST RIT	IY. AND FAILURE WAS	TRACED TO	A PALLTY	HYDRAULI	C 7687 617
CORRECTIVE ACTION-NOT CO	CORRECTIVE ACTION-NOT CONFIRMED. FAULTY TEST EMAINMENT WAS DISPOSITIONED FOR REPAIR.	DISPOSITIONED FOR R	EPAIR.			
HYDRAULIC-A/B BOOSTER	273550 Actuator-Clave	UTF-PET 27-06550-9	16011	3/ <b>9</b>	VES HYDRA NO ARCH 10471	YES HYDRAULIC RESE NO ARCH 104700-8
FAILURE MODE-STRUCTURAL- THE ACTUATOR FAILED. REP	FAILURE MODE-STRUCTURAL-DURING THE CLAMP TEST APTER 860 CYCLES THE CLAMP PULLED OUT OF THE ACTUATOR. THE THREADS IN THE ACTUATOR FAILED. REF FRR IM FS153 NT 8/N 408-2741.	SLES THE CLAMP PULLE	1 901 04	ME ACTUAT		THREADS IN
CORRECTIVE ACTION-NOME-PET LOTS ACCEPTED.	ET LOTS ACCEPTED.					
HYDRAULIC-A/B P.OBTER	FTA8500/P3-4CQ-64-288 ACCUMULATOR	COMPOSITE- J FACT 27-04554-3	2017 <b>5</b>	2	VES PEACOCK NO 51310-3	8-0 8-8
FAILURE MODE-ERRATIC OPERATION, MEASUREMENT ILLATIONS WHEN DEMAND WAS PLACED ON THE SYSTI UID THUS NOT ACTING AS A SURGE CHANGER. THE 8 NOT MORNALLY RUN UNTIL AFTER THE PAC TEST.	FAILURE MODE-ERRATIC OPERATION, MEASUREMENT HEGIP SUBTATHER HYDRALLIC RETURN PRESSURE INDICATED UNUSUALLY LARGE OSC Illations when Denand has placed on the system, this problem caused by the airbenne accumulator being Pilled with Pl UID THUS NOT ACTING AS A SURGE CHANGER. THE ACCUMULATOR WAS FILLED IN THE WYDRALLIC FILL AND BLEED PROCEDURE WHICH IS NOT NORMALLY RUN UNTIL AFTER THE PAC TEST.	N WEDRAULIC RETURN P. 4 CAUSED BY THE AIRD FILLED IN THE MYDRA	RESSURE IN CONE ACCUM ULIC FILL	DICATED ( WLATOR M AND BLEES	PROCEDUL 1946 FILL 1940 FILL	LARGE OBC. ID WITH PL. ME WHICH I

SYSTEM EFFECT-EARATIC OPERATION.

VEHICLE EFFECT-NONE.
CORRECTIVE ACTION-UNKNOWN.

\*\*\*\*\*\*\*

27.1000

11 104 1960

GENERAL BYNAMICS CONVAIR BIVISION

9901 WOT 91	DIFFICULTIES REVIEW-HTDRAULIC SYSTEM-AIRDORME	WIC SYSTEM-AIRBORN	~				•
373TEH 318-373TEH	TEST/REPORT MUSER FAILED COMPONENT NAME	DIF DATA BOUNCE PART NUMBER	VEHICLE DATE BIF	817E 73ME DIF	4 0 X	PRI VENDOR NAME OTH VENDOR PART NO	·····
HTDRALLIC-A/B BOOSTER	ETASATO PRESSURE GAGE	U19-PET 87-06562-8	1017	CONTAIR	5 8	AMERICAM BTAND ARD 6903-718-1	•
FAILURE MODE-OUT-OF-TOLE TEMPERATURE AND HUMIDITY D.	FAILUME MODE-OUT-OF-TOLERANCE DURING PET, MUMEROUS FAILUMES DURING POST-VISMATION PROOF CYCLE, INMERSION TEST, MIGH Temperature and munidity proof cycle on 8/N 408-1748, 408-1780, 408-1780, 408-1847, 110-1844, 110-1841, 140 408-184 ''	DURING POST-VIBRATI VO: 408-1786; 468-1	OH PROOF 047, 110-	CYCLE, 11	1961-	. 100 408-184	
CORRECTIVE ACTION-BUALIT	ION-BUNLITY ASSURANCE MAS REGUESTED ALL UNITS IN OSP STORES AND MECEIVING IMPRECTION DE REJECTÉD.	IN OSP STORES AND I	DCE 1 V1 106	INDPECTION.	2 2	REJECTED.	<b>1</b>
HYDRAULIC-A/B BOOSTER	LV-80-10-297F BOODTER ACCUMANTOR	FAR E7-06954-3	3830 641062	MTR.	20	PEACOCK \$1810-8	:
FAILURE MODE-LEAK-EXTERN CORECTIVE ACTION-VENDOR NETHODS.	FAILURE MODE-LEAK-EXTERMAL, DUE TO CONTANTINATION NEGALTING PROM POOR CADMIUM PLATING ON ACCUMALATOR BOSS. COKECCTIVE ACTION-VENDOR WAS NOTIFIED TO NOTIFY PERSONNEL TO IMPRECT FOR CONTAINM LUM AND INFROME CADMIUM PLATING. ETHOSS.	NOM POOR CADMIUM PL	A 2011 A	ACCUMALA 40 1440	7	66. HIGH PLATING	
HYDRAULIC-A/B BOOSTER	3LV-89-10-264C PRE33URE GACE	FAR 27-06962-3	41014	FACTORY	20	ROCHESTER 6903-710-1	i
FAILURE MODE-INTERNAL LE	NTERMAL LEAK FOUND DURING CHECKOUT. 100-VENDOR CORRECTIVE ACTION WAS INITIATED TO PREVENT LEAKAGE CAUGED BY BUSSTA-GAND BRAIEMENTS.	PREYENT LEAKA <b>se</b> cal	3. VE	B14.04R	3	EPENTS.	
HYDRAULIC-A/8 80037EA	CO/A AGUAS-OOI-EE/FC-CO-OI-050E-DO COMPOSITE-FACTORY  ACTUATOR ASSEMBLY  E7-06550-F	CONFOAT TE-FACTORY E7-00350-7	1745 641000	PACTURY	88	HYDRAULIC RESE ARCH 104700-1	į
FAILURE MODE-ERRATIC OPERATION-E CONDING. THE DISCREPANCY WAS ATTR BYBIEM EFFECT-ERRATIC OPERATION. VEHICLE EFFECT-COMPOSITE DELAYED	FAILUNE MODE-ERRATIC OPERATION-BOOSTER NO. E VANVROLL PEEDBACK TRANSDUCER OUTPUT NAS INTERMITTENT ON DIRECT LINE ME Ordité. The discrepancy was attributed to Pallit age Buitching Relays. BYSTEM EFFECT-ERRATIC OPERATION. WEHICLE EFFECT-COMPOSITE DELAYED. POST COMPOSITE TESTING REQUIRED.	CK TRANSDUCER OUTPY NG RELAYS.	<u> </u>	TABEL 7 TEN	8	INCCT LINE NE	
CORRECTIVE ACTION-REPLAC	CON-REPLACED FALLTY AGE BNTTCHING RELAY.						

CONVAIR DIVISION

11 JUN 1186

	DIFFICULTIES REVIEW-HYBRAULIC SYSTEM-AIRBORNE	AULIC SYSTEM-AIRBOR	¥				
8787EW 81878-818	TEST/REPORT HUMBER FAILED COMPONENT NAME	DIF DATA SUNCE PART NUMBER	WENTCLE DATE DIF	11ME 01F	£ 5	WENICLE BITE PRI VENDOR NAME DATE DIF TIME DIF OTH VENDOR PART NO	
NYDRA'A.IC-A/B BOODTER	LV-88-10-265F HYDRAULIC ACCUMULATOR,O-RING	FAR 87-00554-7	2001 241004	FACTORY	58	VES PEACOCK NO 51310-3	=
FAILURE MODE-LEAR-INTERM	FAILURE MODE-LEAK-INTERNAL, PHEUMATIC PRECHARGE PRESSURE DROPPED IN TWO ACCUMULATORS (2 UNITS).	ICPPED IN THO ACCUMU	LATORS (E. L	MI 76) .			
CORRECTIVE ACTION-FAILUR TER QUALITY O-RIMES.	CORRECTIVE ACTION-FAILURE NOT CONFIRMED-GD/C ADVISED PERSONNEL TO RECMECK SYSTEM TO WERIFY LEAKS. VENDOR TO USE BET Er guality o-rings.	MEL TO RECHECK SYST	EN TO VERI	FY LEAKS	. ACK	DOR TO USE BET	
MYDRAULIC-A/B BOOSTER	SLV-AS-D4-4923F BOOSTER ACTUATOR ASSEMBLY	FAR 27-08350-7	7107 641004	FACTORY	ភ្ជុំខ្	YES HYDRAULIC RESE SOLSSY NO ARCH 104700-1	468.00
FAILURE MODE-OUT UF TOLE F. 15 0.250 AND 0.200 NV F. CONTROL S.GNALS FROM THE NENT MAGNET.	FAILURE HODE-OUT UF TOLERANCE, MULL SHIFT ACTIVE AND INACTIVE MULL READINGS NERE D.208 AND D.208 M.V., THE TOLERANC F. IS D.250 AND D.200 MY FOR ACTIVE AND INACTIVE MULL, FAILURE CAUSED BY A DIFFERENCE IN BERNONALVE MULL REACTION TO CONTROL SIGNALS FROM THE TOC AND ATG-TYPE SERVOANFLIFIERS, ANOTHER DISCREPANCY FOUND WAS A CLOSED CRACK IN THE PERMA NENT MAGNET.	VE MALL READINGS NE IE CAUSE BY A DIFFE INOTHER DISCREPANCY	RE 0.204 / RENCE IN I	HERVOYALV A CLOSED	E MC.	THE TOLERANG	
CORRECTIVE ACTION-CN 640 PE SERVOAMPLIFIER BE LESS FOR A.ST. AND INSPECTION 60/A EOP PROCEDURES NERE	CORRECTIVE ACTION-CH 640818 GO/A CHANGED 1.A.T. DATA SHEET USED BY VENDOR REQUIRING A MALL VALVE USING AN A.E.G. TY PE SERVOAMPLIFIER BE LESS FHAN 0.20 M.A. PER YCAR 7137-64 IN ANSWER TO RAR 3LV-AS-D4-8003 VENDOR REVIEWED PROCEDURES FOR A.ST. AND INSPECTION OF MACHET ASSENDIES. MACHETS ARE INSPECTED FOR CRACKS. VOIDS AND HOLES AFTER FABRICATION 50/A EOP PROCEDURES WERE UPDATED TO REQUIRE MALL CHECKS WITH BOTH AMPLIFIERS.	USED BY VENDOR REGULA HISHER TO RAR SLY- INSPECTED FOR CRACK	18166 A M A9-04-6001 8, VOIDS /	AL VALVE	MEVIE AFTE	6 AN A.E.G. TY NED PROCEDURES R FABRICATION	
HYDRAUL I C-A/B BOOSTER	3LV-AG-DG-492AF Booster Actuator Assembly	FAR 37-06550-7	7107	FACTORY	7 č	YES HYDRAULIC RESE NO ARCH 104700-1	• • • • • • • • • • • • • • • • • • • •
FAILURE MODE-OUT OF TOLERANC THE TOLERANCE IS 0.250 AND 0. MACHET AND UPPER POLE PIECES.	FAILURE MODE-OUT OF TOLERANCE, MULL BHIFT, ACTIVE AND INNCITVE MULL VALUES MERE 0.550 AND 0.555 VOLT RESPECTIVELY. THE TOLERANCE IS 0.250 AND 0.250 VOLT, CAUSED BY MOVEMENT AFTER BJILDUP AND ACCEPTANCE OF THE SERVOVALVE MOTOR RING MAGNET AND UPPER POLE PIECES.	TIVE MUL VALUES MER TER BJILDUP AND ACC	E 0.350 AI	0 0.355	VOL T VOVAL	RESPECTIVELY.	
CCRRECTIVE ACTION-PER RA PROFERLY BY STORAGE, PAC FCHHED OF THE CONTAHINANT PERSCAWEL STATED THAT BE	CCRRECTIVE ACTION-PER RAR NEW-AB-EGG-BOOT A DETAILED CHICK ABBUNED THAT BOOBTER BERNOCYLINDER ABBENBLIES ARE HANDLED PROFERLY BY STORAGE, PACKAGING AND ASSY. LINE PERSONNEL, PER YCAR 7178-85 AND RAR BLW-AB-DG-BOOB, THE VENDOR WAS IN PCRHED OF THE CONTAHINANTS FOUND IN TORBUE NOTOR, PER AN ALYJO, DATED BEDESS IN ANBNER TO RAR BLW-AB-DG-BOIB, DESIGN PERSONNEL STATED THAT BINCE VENDOR CONTAHINATION HAS BEEN RESOLVED, NO FURTHER ACTION IS MARRANTED.	BBUNED THAT BOOSTER E4 VCAR 7178-65 AND F-O. DATED 650E11 IN TEGGLWED: NO FURTHER	BERVOCYL RAR SLV-A ANDMER T ACTION I	INDER ASS 0-04-8008 0 RAR 8LV		ES ARE MANDLES VENDOR MAS II 4-8018 DESIG	

FAILURE MODE-LEAK-EXTERNAL-CONTIMUOUS OIL SEEPAGE WAS COPERNED DURING CHECKOUT. CAUSED BY DEFECTIVE SEAL AT PUMP PLANCE PRESSURE SENSING PORT.

PACTORY YES VICKERS NO AA-60694-R-EA

FAR 87-06588-1

BLV-AB-10-269F Hydraulic Pump/Bral

HYDRAULIC-A/B BOOSTER

GENERAL DYNAHICS CONVAIR SIVIBION

; ;

1961 WAT 11	TVANO	COMPANY 21 VIBION	•		
BYBTEN BUG-SYBTEN	TESTAREPORT MUMBER FAILED COMPONENT MANE	DIFFICULTIES REVIEW-ATDRAULIC STOTEN-AIRBORNE.  STARFORT MAMER DIF DATA BOUNCE IN ED CONFOMENT MAME PART MAMBER DI	ENICLE BITE	PRI VENDOR NAME OTH VENDOR PART NO	
1104-VE	CORRECTIVE ACTION-VENDOR REVIEWED BTOCK OF O-RIMSS AND INFORMED THEIR PERSONNEL OF CORRECT SEAL INSTALLATION PROCED	NFORMED THEIR PERSONN	EL OF CORRECT MEAL I	NSTALLATION PROCED	:
	LV-A9-D4-4908F ACTUATOR ASSEMBLY	FAR E7-06550-7	1940 FACTORY 640928	TES HYDRAULIC RESE NO ARCH 104700-1	301818
FAILURE MODE-ERRATIC OT DETERMINED. E.O.P. L'S FRON AN A1G OR HOD OR. VENDOR ACTION FOR	FAILURE MODE-ERRATIC OPERATION. ACTIVE MULL FLEDBACK WOLTAGE PLUCTUATED EO MY WITH BOOSTER IN MALL POSITION CAUSE NO DETERMINÉD. E.O.P. REQUIREMENTS VERE NET, A LARGE INCREASE IN THRESHOLD AND PHASE LAS OCCURRED MITH CONTROL SIGNALS FROM AN AIG OR MODIFIED AIG SERVO AMPLIPIED. MACHETIC METALLIC PARTICLES MEME FOUND IN THE SERVO VALVE TORSUE MOT OR. VENDOR ACTION FOR INCREASED CLEAMINESS WAS EFFECTIVE AFTER ASSEMBLY OF THIS UNIT.	TAGE PLUCTUATED 20 NV METALLIC PARTICLES NE!	NY WITH BOOSTER IN MA. IND PHASE LAG OCCURED IN THE SERVITHIS UNIT.	L POSITION CAUSE M MITH CONTROL BISMA D VALVE TORBUE MOT	
CORRECTIVE ACTION-PE IF FOMO TO BE NORMA B-DB-3970 DATED 61102 641110 REQUESTED THA DER ASSENGLIES FOR AN	CORRECTIVE ACTION-PER RAR LV-AS-D4-3969 DATED 641021 DESIGN PERSCHMEL MERE MEMERSTED TO STUDY THE MULL BEHAVIOR AND If Found to be normul, then appropriate instructions should be issued to cease this type of rejection. Per ram LV-A 8-DS-3970 DATED 611021 WO/C NOTIFIED HYDRAULIC RESEARCH OF THE WETALLIC CONTAMINANT PARTICLES. MENO 596-TO-350 DATED 641110 REQUESTED THAT DESIGN AND/OR FUNCTIONAL TEST INTEGRATION PERSONNEL BE COMBULTED BEFORE REJECTING SERVO CYLIN DER ASSEMBLIES FOR ANCHALIES ALLOMBLE TOLERANCES.	MAD BE ISSUED TO CEAR WAD BE ISSUED TO CEAR F THE WETALLIC CONTAN MATION PERROPEL BE (	HESTED TO STUDY THE E THIS TYPE OF REJEC INMIT PARTICLES. MEN COMMUNITED BEFORE REJ	NALL BEHAVIOR AND TION: PER RAR LV-A O 856-70-350 DATED ECTING BERVO CYLIN	
	SLV-99-04-4913F BOOSTER ACTUATOR ASSEMBLY	FAR 27-06550-7	\$301 FACTORY 640914	YES HYDRAULIC RESE MD ARCH 104700-1	•
FAILURE MODE-EXTERNAL OD PSIG. LEAK NATE MOT	FAILINE MOSE-EXTERNAL LEARAGE, LEARAGE COSCRMED AT THE THREADED PIRTON BUPPORT WITH MYDRAULIC SYSTEM PRESSURE AT 30 10 psig. Lear rate mot determined. Cause unknown, the yeplon wiper was damaged at assembly.	HREADED PINTON BUPPOR	T NETH HYDRAULIC BYS AT ASSESSELY.	TEN PRESSURE AT 30	
CORECTIVE ACTION-FA  PER DESIGN MENO 662  OUL DROP PEFIO CYCL  A 1 3.2 CP3 BEFORE R  APPLICABLE TO 81TE3  LEANAGE CRITERIA BE	CORECTIVE ACTION-FAILURE UNCOMTRHED, AMEETING MELD AT 60/A ON 640708 DECIDED THAT A BUNKEY WOULD NO' BE REGUEDTED.  PER DESIGN MENO 662-10-13 DATED 640728. THE LEAK TOLERANCE FOR BERNO ABBIDGE, MAS MIGHED FROM ONE DROF PER 23 TO ONE DEDIGHENDS ANY BURDECT ASSY BE ACTUATED 100 EYCLE S AT 3.2 CPS BEFORE REJECTION, VAING LEAKAGE DURING LAST TO CYCLES AS CRITERIA FOR DYMANIC LEAKAGE REJECTION, THIS IS A PHILICADLE TO SITES ONLY. PER RAR BLY-99-04-3978 DATED 641729. GO/C INITIATED DESIGN CORRECTIVE ACTION RECOMBENDING LEAKAGE CRITERIA BE SPECIFIEDFOR FACTION RECOMBENDING	LD AT 60/A ON 640708 DECIDED TOLERHEE FOR SERVO ASSEMBLE 64AND, MEMOLED RECOMENDS . LAST 70 CYCLES AS CRITERIA DATED 641729. GO/C IMITIATE TO MEMO 64E-10-18.	D THAT A SURVET NOULD TES MAS WIDENED FROM ANY SUSPECT ASSY BE POR DYNAMIC LEARAGE D DESIGN CORRECTIVE.	D NO' DE PERUESTED ONE DROF PER 23 T ACTUATED 100 CYCLE REJECTION, THIS I ACTION RECOMMENDIN	
	PACSSLE 646E 2-101-88-10-881-C	FAR 27-06842-8	58-01 FACTORY 640900	YES ROCHESTER NO 0803-719-1	***

CORRECTIVE ACTION-VENDOR CORRECTIVE ACTION IN B INITIATED TO PREVENT LEARAGE CAUGED BY BURBTANDARD BRAZEMENTS.

FAILURE MOCE-LEAR INTERMAL, PRESSURE GAGE MAS POING TO BE LEARING INTERMALLY BURING A CHECKOUT.

GENERAL DYNAMICS

19 JUN 1966

DI A1 810H	
CORATE	
	COMVAIR DIVIDION

DIFFICULTIES REVIEW-HYDRAULIC SYSTEM-AIRBORNE

		997610				****	
VENDOR MANE VENDOR PART NO HYDRAVLIC RESE	E MSESTS-EIS D THE SIAS CUT O EMSIONS MEET RE	YES HYDRAULIC RESE BOTGLO NO ARCH 104703-9	IEF. FPR NO. PSI	TES HYDRAULIC RESE ND ARCH 104708-9	1. REQUIRED 18 8 HOVIDE NEW VALVE	HYDRAULIC RESE ARCH 10-1700-9	FPR NO. PSSSSWT
SITE PRI TIME BIF OTH FACTORY YES	AKED PAST TE KTRLDED ENTC TE GLAND DIE	60/c YES	2124 OHIO	OH 2/09	MAS 0.10 GP: UES. ALBO P	0X 2/09	K TRANSDUCES AXIMUN REF.
	. Oft MAD LE BAUME SIPE E WENDOM ABBU LIC PLUID.	620079	STANCE WAS	\$200 <b>79</b>	R PLON BATE	640929	THE FEEDBAC 18 80 MV. H
DIF DATA SOURCE PART NUMBER FAR E7-06590-7	TH ADJUSTMENT MUT TLONED LEARAGE. LONED LEARAGE.	27-06550-0	IX. HIGH TEMP. RES. TE COMPATIBLE MITH JT. REF. FRR FR854	UTP-PET : R7-00350-0	IS THE FLOM LIMITED ATIBLE WITH SPECII	UTF-PET E7-08350-9	) TEMPERATURE TEST IE WAS 84 MY. RED.
TEST/REPORT NUMBER FAILED COMPONENT MANE SLV-99-04-4800-F BOOSTER ACTUATOR ASSEMBLY O-RING	FAILURE MODE-EXTERNAL LEARAGE, HYDRAULIC PLUID LEAR AT LENGTH ADJUSTMENT MUT. OIL HAD LEAKED PAST THE HSSEYTS-EIS D YMANIC O-RING IN THE MOUSING. AS THE O-RING SOFTENED AND SMELLED, ITS LOW PRESSURE SIPE EXTRUDED INTO THE ZIAS CUT O F THE TEFLON SPIRAL BACKUP RING AND WAS MICKED. THE NICKS ALLONED LEAKAGE.  CORRECTIVE ACTION-PER RAR SLV-99-04-8000 DATED SAIROS, SO/A RECOMMENDED THAT WENDOR ASSURE SLAND DIMENSIONS MEET RE QUIREMENTS AND THAT WENDOR RUM YOLUME SHELL TESTS OF BANPLE O-RINGS IN MYDRAULIC PLUID.	DRAULIC-A/B E7A5650 OSTER ACTUATOR, SENOVALVE E7-06550-9 600625 60/C YES HYDRAULIC RESIDENCE ACTUATOR, SENOVALVE E7-06550-9 1040625 60/C YES HYDRAULIC RESIDENCE HODE-OUT OF TOLERANCE, DURING FILID TEMPERATURE TRAIN THE MENDY MAINS FOUR SENIATABLE LANG CUT OF TOLERANCE, DURING FILID TEMPERATURE TRAIN THE MENDY MAINS FOUR SENIATABLE LANG CUT OF TOLERANCE.	AS FOLLOWS. LOW TEMP. RESISTANCE WAS ELEG ONNS. REG. 2100 MAX. HIGH TEMP. RESISTANCE WAS ELEG ONNS. REF. FPR NO. F31 33WT 3/N 402-2741. CORRECTIVE ACTION-REVISE VENDOR AND CONVAIR IAT VALUES TO BE CONFATIBLE WITH SPECIFICATION VALUES. ALSO PROVIDE NEW	E7A3650 BOOSTER BERVO CYLINDER-FLOM LIMITE E7-D6550-8 R VALVE	FAILURE WODE-OUT OF TOLERANGE-DURING FLUID TEMPERATURE TESTS THE FLOM LIMITER FLOW RATE WAS 8-18 GFM. REQUIRED IS S -80 GFM MINIMUM. REF. FOR NO. FSISSUT S/N ADE-2741.  COFRECTIVE ACTION-REVISE VENDOR AND CONVAIR IST VALUES COMPATIBLE WITH SPECIFICATION VALUES. ALSO PROVIDE NEW VALVE  B FOR SPECIFIC ENVIRONMENTS IN IST. PET LOT ACCEPTED REP. FRR FR 854-2-3838.	27436:0 ACTUATOR-FEEDBACK TRANSDUCER	FAILURE MODE-OUT OF SPECIFICATION ON TOLERANCE-DURING FLUID TEMPERATURE TEST THE PEEDBACK TRANSDUCER MULL VOLTAGE W AS 54 MV. DURING HIGH FLUID TEMPERATURE TEST THE MULL VOLTAGE WAS 84 MV. RES. IS 80 MV. MAXIMUM REF. FPR MO. FSISSUT S/M 40E-2741.
BYSTEN SUB-3YSTEN HYDRAUL IC-A/B BOOSTER	FAILURE MODE-EXTERNAL LYMANIC O-RING IN THE MOU F THE TEFLOM SPIRAL BACK CORRECTIVE ACTION-PER R	HYDRAULIC-A/B BOOSTER FAILURE HODE-OUT OF TOR	AS FOLLOWS, LOW TEMP, RE SSMT S/N 402-2741. CORECTIVE ACTION-REVIS VALUES FOR SPECIFIC ENV	HYDRAULIC-A/B Booster	FAILURE MODE-OUT OF TOL.  60 GPM MINIMUM. REF. FO  CORRECTIVE ACTION-REVIS  8 FOR SPECIFIC ENVIRONME	MYDRAULIC-A/B BOCSTER	FAILURE MODE-OUT OF SPE AS 54 MV. DURING HIGH FL 8/M 402-2745.

PASE 0036

CORRECTIVE ACTION-REVICE VENDOR AND CONVAIR TAT VALUES COMPATIBLE WITH SPECIFICATION VALUES. ALSO PROVIDE HEW VALVE B FOR SPECIFIC ENVIRONMENTS IN TAT. PET LOT ACCEPTED REF FRRS4-2-383A.

15 JUN 1966

DI VI 81 ON
COMAIR

	DIFFICULTIES REVIEW-WORAULIC SYSTEM-AIRBORNE	TAULIC BYSTEM-AIRBOR	¥				
8787EX 848-875EX	TEST/REPORT MUMBER FAILED COMPOMENT NAME	DIF DATA BOUNCE PART NUMBER	WEHICLE DATE DIF	81TE TIME DIF	PRI VEND	VEHICLE SITE PRI VENDOR MANE	
HYDRAULIC-A/B BOUSTER	SLV-00-10-202F RELIEF VALVE	FAR E7-09570-1	\$3-01 640617	FACTORY	VES VINSON NO A-6013	VINSON A-60133-1	•
FAILURE MODE-LEAR INTERN	FAILUME MODE-LEAR INTERMAL-VALVE ALLOMED PRECHARGE OF MYDRAULIC RESERVOIR TO BECAY. (B. UPITS). Corrective action-mome-learage rate was within specification reguirenemis.	NA.IC RESERVOIR TO BE TO	ECAY. G				
HTDRAULIC-A/B BODSTER	A-98-04-4884-F ACTUATOR O RING	FAR 27-06330-0	1186	PACTORY	YES HYDRA NO ARCH 10470	YES HYDRAULIC RESE NO ARCH 104700-9	:
FAILURE MODE-LTAR, EXTER ASE OF ACTUATOR PRESSURE PATH WAS THROUGH A BREEK AGGRAVATED BY A 20 PERCE	FAILURE HODE-LIAK, EXTERNAL, BOOSTER E YAN SERVOCYLINDER ASSENBLY HAD HYDRAULIC LEAKAGE FROM THE THREADED PLUG ON B ASE OF ACTUATOR PRESSURE PORT. WEN ACTUATOR WAS PRESSURIZED TO 100 PSIG, THE LEAKAGE RATE WAS 1 CC/MIM. THE LEAKAGE PATH WAS THROUGH A BREAK IN THE INSIDE DIAMETER OF THE O-RING. FAILURE WAS CAUSED BY AN INTERNAL FLAW IN THE O-RING AGGRAVATED BY A 20 PERCENT O-RING STRETCH IMPORED BY THE PLUG DIMENSIONS.	SSEMBLY MAD HYDRAUL) TO 100 PSIG, THE LINE, FAILURE MAS CAULUE DIMENSIONS.	C LEAKSGE EAKAGE RAT NED BY AN	FROM THE E MAS 1 O INTERNAL	THREADED CCHIM. T	PLUG ON B TE CENTAGE THE O-RING	
CORRECTIVE ACTION-AS THI , NO DESIGN CORRECTIVE AC MAS EITHER CONCURRENTLY O	CORRECTIVE ACTION-AS THIS 19 FIRST INSTANCE OF A CRACKED O-RING AT THIS PLUG AND SINCE A FLAM EXISTED IN THE O-RING, NO DESIGN CORRECTIVE ACTION MILL BE SCUGHT TO REDUCE THE GLAND DIANETER. VENDOR GUALITY CONTROL CORRECTIVE ACTION WAS EITHER CONCURRENTLY OR SUBSEQUENT HISTATED TO PREVENT INSTALLATION OF SUB-STANDARD O-RINGS.	-RING AT THIS PLUG A FLAND DIANETER: VEDE INSTALLATION OF BUB-	UE AND SINCE A PLAN E WENDOR BUALITY CONTRO BUB-STANDARD O-RINGS.	PLAN EX CONTROL PRINGS.	CORECTI	THE O-RING WE ACTION	
HYDRAULIC-A/B BODSTER	2743470 PHESSURE GAGE	UTP-PET 27-06362-8	40014	CONVA I R	YES AMER NO ARD 0903	YES AMERICAN STAND 099004 NO ARD 0903-719-1	3
FALLURE MODE-LEAR-DURING LL OF WATER, SIMILAR FAIL ES NOT EFFECT FUNCTIONING	FAILUNE WOJE-LEAK-DURING PET HOGERSION TEST, TEST DPECINEN SON 405-1740, 406-1780, 110-1854 NERE ABOUT ONE-THIRD FULL OF MATER, SIMILAR PAILUNES OCCURRED ON 64/0/ES TO 0/N 405-1640, 408-1760, AND 406-1847, REPER TO FAR 377, LEAR BOLES HOT EFFECT FUNCTIONING OF UNIT.  ES NOT EFFECT FUNCTIONING OF UNIT.  COMMENTED AND REFERENCE FUNCTIONING OF UNITE AND RECEIVED BY REVECTED.	9/N 439-1740, 468-1 1-1840, 408-1769, AM	786. 110-1 9 406-1647 MCCETVINE	A METER .	P. P. P. P. P. P. P. P. P. P. P. P. P. P	F-Third Fu 7. LEAR BO ECTED.	
HTDRAULIC-A/B BONSTER	3LV-99-10-862F RELIEF VALWE	FAR 27-08370-1	71-07	PACTORY	YES VINSON	VINSON A-40135-\$	2
FAILURE MODE - LEAK INTE	FAILURE MODE - LEAK INTERNAL, VALVE ALLONED PRECHARGE OF HIDRAULIC TAMR TO DECAY. Compective action-mone-learage gate has within opecipication resulbements.	TDBAULIC TANK TO DEC DN REGUIRENENTD.	į				
			-				•

GENERAL BYNAMICS CONVAIR DIVISION

9961 NOT 51

		20406		2671.34			1988	
	WENICLE BITE PRI VENDOR NAME DATE DIF TIME DIF OTH VENDOR PART NO	CONVAIR YES AMERICAN STAND NO ARD 0003-719-1	S GREATER THAN SPECIFICATION INSPECTION BE REJECTED.	9776 YES -1.5 NO	ENGINE IGNITION TO APPROXI OF 7 SECONDS, THEN INCREAS IE RETURNING TO NORMAL. MHOUT THE REMAINDER OF THE		FACTORY VES HYDRAULIC RESE ARCH 104700-1	D MOVEMENT OF THE BOOSTER E 18-30 MICRON AND 100-500 MIC 18-30 MICRON AND 100-500 MIC 18-30 MICRON TO THE MICRO 18-30 LOCK PERMITTING THE PLU
¥	VEHICLE DATE DIF	840018	E ERROR M.	1106	WARED FROM WER PERIOD SHOWS BEFORE VELS THROS		640729	MCE TO MAIL L IN THE 1 IC OIL LEV LASTIC THE
DIFFICULTIES REVIEW-HYDRAULIC STSTEM-AIRBORNE	TEST/REPORT NUMBER DIF DATA SOURCE FAILED COMPONENT NAME PART NUMBER	E73470 UTP-PET PRESSURE 646E E7-0656E-3	PAILURE MODE-OUT OF TOLERANCE, DURING PET POST VIBRATION PROOF CYCLE, THE SCALE ERROR MAS GREATER THAM SPECIFICATION ALLOMANCE OF 100 PAIS.  N ALLOMANCE OF 100 PAIS, AT 2500 PAIS TEST SPECIMEN S/N 408-1740 READ 2850 PAIS.  CORRECTIVE ACTION-QUALITY ASSURANCE HAS REQUESTED ALL UNITS IN OSP STORES AND RECEIVING INSPECTION BE REJECTED.	60A-AP264-052/E1-603-00-110 FLIGHT	FAILURE MODE-OUT OF TOLERANCE, ABMORMAL BOOSTER HYDRAULIC SYSTEM PRESSURES OCCURRED FROM EMBINE IGNITION TO APPROXI MATELY 12 SECONDS. MOTHAL PRESSURE RISE TO ETDS PSI, THEN GRADUAL TO 2000 PSI OVER PERIOD OF 7 SECONDS, THEN INCREAS LD TO MOTHAL 3030 PSI DURING MEXT 1.5 SECONDS. DIP IN RETURN PRESSURE FOR 5 SECONDS BEFORE RETURNING TO MORMAL. SYSTEM EFFECT-NOME, AFTER 12 SECONDS HYDRAULIC PRESSURES INDICATED EMPECTED LEVELS THROUGHOUT THE REMAINDER OF THE MEHICLE EFFECT-NOME, AND METRIFACTORY THROUGHOUT PLIGHT.	CORRECTIVE ACTION-NOME. THE CAUSE OF THE ABNORMAL PRESSURES WAS NOT DETERMINED.	LV-99-04-4627-F FAR BOOSTER ACTUATOR A887. E7-06350-7	FAILURE WOEF-FAILED DURING OPERATION-THE ACTUATOR OFFERED INTERNITIENT RESISTANCE TO MAND MOVEMENT OF THE BOOSTER E WGINE DUE TO TIGHT MOUNTING CLEVIS BEARING. EXCESSIVELY HIGH CONTAMINATION LEVEL IN THE 86-50 MICROM AND 100-500 MIC. ROW SIZE PARTICAL AREAS WAS FOUND BUT WO CONTAMINATION SOUNCES LOCATED. HYDRAULIC OIL LEARAGE WAS EVIDENT PAST THE M ACHIMING PORT PLUG AFT OF IMLET PRESSURE PORT DUE TO INCORRECT APPLICATION OF PLASTIC THREAD LOCK PERMITTING THE PLUG TO LOOSEM AND BACK OUT.
	BVB-SYSTEM	NYDRAULIC-A/B BYAN	FAILURE MODE-OUT OF TOLERANC IN ALLOMNICE OF 100 PRIS. AT E.	HTDRAULIC-A/B GDA.	FAILURE MODE-OUT OF TOLERANC MATELY 12 SECONDS. MORNAL PRE LD TO MORNAL 3030 PSI DURING- 873TEM EFFECT-NOME, AFTER 12 PLIGHT, 2"SIEM OPERATION WAS	CORRECTIVE ACTION-NOME. THE	MYDRAULIC-A/B LV-4 BOOSTER BOOS	FAILURE WOEE-FAILED DURING OF MEINE DUE TO TIGHT MOUNTING CORNO SIZE PARTICAL AREAS 448 FAACHINING PORT PLUG AFT OF INLIG TO LOOSEN AND BACK OUT.

CORRECTIVE ACTION-60/C INITIATED VENDOR CORRECTIVE ACTION COMERNING PORT PLUE LEARAGE, RECOMENDING VENDOR IMPROVE
ASSEMBLY PROCEDURE TO ASSURE CORRECT INSTALLATION AND LOCKING OF THE PLUE, REF RELIABILITY REPORT LY-SS-04-1948 OF
AUG 3 1944 NO PEANINGFUL CORRECTIVE ACTION WAS POSSIBLE RESARDING RUB MARKS ON PISTON AND SLAND AS FUNCTION OF PART
HAS NOT DETRINENTALLY AFFECTED VINDOR COMPIRMED CORRECTIVE ACTION RECOMMENDATION 3EPT 185, 1964. CONVAIR YES VICKERS NO AA-8094-R-EA 1200 UTP-BLT R7-00566-1 4841510.9 HYDRAULIC PUMP HYDRAULIC-A/B

FAILURE MODE-OUT OF SPECIFICATION. BON 205-0066. FAILED TO MEET TRANSIENT PRESSURE HAR ALLOMMELE 4000 PSIG LIMIT. T Ransients were 4369-4162-4275 and 4407 PSIG. SPECIMEN EXCEEDED REGULATED FULL FLOW TO NO PLOW LIMIT OF 8-05 SEC. TIM E MAS D-84 SECOMDS.

SENERAL DYNAMICS CONVAIR BIVISION

100 100

\*\*\*\* \*\*\* \*\*

CORRECTIVE ACTION-DE	TOW-DEPT 694-0 TO SUMMIT ECP 7649 TO MEVIAE 7EST LEVELS.	E TENT LEVELS.				1
HYDRAULIC-A/B BOOSTER	E7A3470 GAGE-PRE33URE	U19-PE1 21-06962-3	640724	COMVAIR	YES AMERICAN STAND NO ARD 0003-710-1	7A10
FAILURE MODE-OUT OF TOR EFERENCE GAGE PRESSURE. PAIG REFERENCE, LOT 22.	FAILURE MODE-OUT OF TOLERANCE AT THE CONCLUBBION OF PET-TEMPERATURE-ALTITUDE-MUNIDITY, 646E Ference 646e pressure. Haximum specification is 100 psi6). Similar Failure on 647720.646E Si6 Reference. Lot 22, Test specimens a/N 409-1700 AMD 110-1354. Refer to FMR 858.	TEMPERATURE-ALTITUDE» 6). BIMILAR FAILURE OI 10-1354. REFER TO PIR	MUNIDITY. N 64/7/20.	33	READ 150 PSIG AT ZERO R READ E/ES PSIG AT 2000	# 000 000
CORRECTIVE ACTION-QUALITY CO	CORRECTIVE ACTION-GUALITY CONTROL TO CONTACT VENDOR AND INFORM HIM OF PROBLEM. THIS IS PIRST PET TEST SINCE 1880: W	INTORN HIN OF PROLEDI.	. TAIS 18	71887 PET	TEST SINCE 18	3
HYDRAUL IC-A/B BOOSTER	3CV-99-10-260-F	FAR 87-06571-61	12.07	PACTORY	YES AEROQUIP NO 660181-16-0866	9550
PAILURE MODE-LEAK EKI CORRECTIVE ACTION-LAN	EAK EXTERNAL. HORE ASSEMBLY MAS PEJECTED BECAUSE OF REPORTED LEAKAGE. Tok-uarhoma. Failure has not confirmed. Hydraulic pluid hay have driffeed on hose from sone other com-	ECAUSE OF REPORTED LEA	MANGE.	A A A A A A A A A A A A A A A A A A A	ON SOME OTHER	8
HTDRAULIC-A/B BOOSTER	LV-18-D4-4883F ACTUATOR, TRANSDUCER-PEEDBACK	744	<b>610716</b>	FAC 1980 V	10 K-44PH-4E	Comm. 0040077
FAILURE MODE-OUT OF SPECIFICATION OR O OVER TORBUING OF THE LOCKNUT DURING CORRECTIVE ACTION-HYDRAULIC RESEARCH	NI OF SPECIFICATION OR TOLERANCE. THE THREADS ON THE PROSE NEME BANNSED, THE PAILURE NAS ATTRIBUTED. OF THE LOCKNUT DURING INSTALLATION IN THE ACTUATOR. ION-HYDRAULIC RESEARCH ESTABLISHED A TORGUE VALUE OF ED PLUS OR HINUS & POUND INCHES FOR THE LOCKNUT	ACTUATOR.  E VALUE OF ED PLUS OR	Dama &CD.	THE PAILUR	PROSE MEME BANNSED. THE PAILURE MAS ATTRIBUTED TO	3 3
	THE TRANSDUCER IN THEIR ACTUATOR.					
HYDRAULIC-A/B	BLV-90-10-259-F BOODTER HYDRAULIC PUMP/NEAL	FAR 27-06566-1	0071-01	Ę	NO VICKERS VES AA-60694-R-EA	٧.

GENERAL DYNAHICS CONVAIR DIVISION

15 JUN 1966

L		DIFFICULTIES REVIEW-HYDRAULIC SYSTEM-AIRBORNE	AULIC SYSTEM-AIRBORN					
	3737EH 8UB-3737EH	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	WENICLE SITE DATE DIF TIME DIF	317C	2 5 2 5	PRI VENDOR NAME OTH VENDOR PART NO	
	CORRECTIVE ACTION-NO COR	CORRECTIVE ACTION-NO CORRECTIVE ACTION RECOMMENDED SINCE DAMME OCCURRED DUE TO INADVERTENT OVERPRESSURIZATION OF T 888488	MAGE OCCURRED DUE TO	IMADVERT	INT OVER	100	RIZATION OF T	:
Z ě	WYDRAULIC-A/B BOOSTER	3LV-9D-D4-4471-F ACTUATOR A33EMBLY-BOOSTER-O-RING	FAR 27-06550-7	640709	<b>4</b> 5	28	YES HYDRAULIC RESE NO ARCH 104700-1	60016
	FAILURE MODE-LEAKED INTE ATE OF 2 TO 3 DROPS PER 2 IT LEAKED 13 DROPS PER 24 RE DAMAGED WHEN UNITS MEM	FAILURE MODE-LEAKED INTERNAL-THREE BOOSTER ACTUATOR ABBY REPORTEDLY LEAKED HYDRAULIC DIL AT THE ACTUATOR ROD AT A R ATE OF 2 TO 3 DROPS PER 29 CYCLES AT INLET PRESSURE OF 3000 PBIG. TEST ANALYSIS CONFIRMED ONLY ONE OF THE LEAKAGES. IT LEAKED 13 DROPS PER 24 MRS AT 3000 PBIG. THIS WAS CAUSED BY ASSEMBLY DANAGE. IT IS THOUGHT MANY INTERNAL BEALS WE RE DANAGED WHEN UNITS WERE DISASSEMBLED AND MEASSEMBLED DURING SURVEY 13-65.	PORTEDLY LEAKED MYDR Page, Test Amilysis By Assembly Damide. Ng Burvey 13-65.	AULIC OIL CONTIRNED IT IN THO	AT THE ONLY ON	P P P	OR ROD AT A R HE LEAKAGES, RML BEALS NE	
	CORRECTIVE ACTION-LEAKAG DER STATIC PRESSURIZATION IOMS. ANY SUSPECT CTLINDE ING THE LAST 30 CYCLES AS	CORRECTIVE ACTION-LEARAGE TOLERANCE FOR THE ASSEMBLIES WAS WIDENED FROM 1 TO 2 DROPS PER 24 HRS. FROM EACH GLAND UNDER STATIC PRESSURIZATION AND FROM 1 DROP PER 25 CYCLES TO 1 DROP PER 10 CYCLES FROM EACH GLAND UNDER DYNAMIC CONDITIONS. ANY SUSPECT CYLINDER SHOULD BE ACTUATED THROUGH 100 CYCLES AT ONE-MALF CPS BEFORE REJECTION, USING LEARAGE DUR THE LAST 30 CYCLES AS THE CRITERION FOR MEJECTION BECAUSE OF DYNAMIC LEARAGE.	MIDENED FROM 1 TO 2 DROP PER 1D CYCLES CLES AT OME-MALF CPS E OF DYNAMIC LEARAGE	DROPS PER FROM EACH BEFORE RI	24 MRS. GLAND U EJECTION	7 2 3 4 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	EACH GLAND UN YNAMIC CONDIT IG LEAKAGE DUR	
1 4	HTDRALL I C-A/B BOOSTER	E7A3931 VALVE-SAFETY RELIEF	UTP-PET 27-06561-1	101079	CONVAIR	2 Q	YES BENBOM NO 9050	*****
	FAILURE MODE-OUT OF TOLE 8 6: 8: AND 7 CC/MIN. (SP. R 404-8468: LOT MARGER 6:	FAILURE HODE-OUT OF TOLERANCE. BURING PET HIGH TEMPERATURE (PLUB 279 DEG. P), TEBT INTERNAL LEAKAGE AT 3000 PSIG NA 8 g. g. and 7 cc/min. (Specification is 3 cc/min, Marimum), Binilar Failure Occurred 44/07/29 on Test Specinen Number 8 404-8468, Lot Mumbir & as on Test Specinen Number 404-0477, Lot Number 7, Refer to Prr 354,	(PLUS 279 DEG. F), T SIMILAR FAILURE OCCU , LOT NUMBER T, REFE	EST INTERIORED 64/0 A TO PRE	ML LEAK 7/29 OH '	7 5 T	SOCO PSIG MA	
	CORRECTIVE ACTION-SLV DE	CORRECTIVE ACTION-SLY DESIGN TO CHANGE SPECIFICATION TO ALLOW 30 CC/HIN LEARAGE AT 3150 PSIG.	ON 30 CC/WIN LEAKAGE	AT 3180	.916.			
2 6	HTDRAULIC-A/B BOOSTER	2743528 MANUAL OPERATED VALVE	UTP-PET 27-00568-3	\$4070\$	CORVAIR	¥ 0	YES STERER ENGA NO 12860	# # #
	FAILURE MODE-CONTAMINATION NINUS 0.06. TIME TO STABLY ESTABLISHED-APPEARED IN	FAILURE MODE-CONTAMINATION. 8/N 403-1045 CONTROLLED FLOW WAS 0.515 GPM DURING TAT. SPECIFICATION LIMITS ARE PLUS OR Minus 0.06. Time to stabilize was 2.0 seconds. Specification is 0.1 seconds. PPR-5125 cause of Failure not absolute Ly Established-appeared to re contamination. No other depects apparent upon disabsembly.	8 0.515 CPH DURING 1 N 15 0.1 SECONDS. FP 8 APPARENT UPCH DISA	AT. SPECII R-5125 CA SBENELT.	FICATION JAE OF FI	11.00	S ARE PLUS OR	and the second s
	CORRECTIVE ACTION-REF. PR 654-2-340 REQU	CORRECTIVE ACTION-REF. FR 654-2-340 REQUESTED VENDOR INCREASE INSPECTION SURVEILLANCE, AT PRESENT THERE IS A 100 PC CONTAMINATION CHECK BY 60/A INSPECTION.	BE INDPECTION BURNEL	LLANCE. A	PRESEN	7	E 18 A 100 PC	
ž¥	HYDRAU.IC-A/B BOOSTER	LV-8D-10-E56-F BOOSTER ACCUMULATOR/O-RING	FAR 87-04554-3	19ED	5	10.0	TES PEACOCK EMS. NOWESISSO-SS	t
	PAILURE WOE-LEAK INTERN	FAILUME MODE-LEAK INTERNAL-CAUSED BY A CUT IN TEPLON BACKUP RIMB WHICH ALLOMED O-RIMB SEAL TO EXTRUDE.	RIME MAICH ALLONED	Onim M	1. 10 EX	Tau C		

GENERAL BYNAHICS CONVAIR BIVISION

· •

1961 157 11

¥ 2.000 1

BVBTEN BUB-BYBTEN	TEST/REPORT MUBER FAILED COMPORENT MME	DIF DATA BOURCE PART NUMBER	WENICLE DATE DIF	817E 71ME D1F	2 5 0	MENICLE BITE PRI VENDOR PART NO
CORRECTIVE ACTION-Y	11 ON-VENDOR MAE HOTIFIED TO SESPECT ACCUMULATORS TO BE CERTAIN THAT BEALS ARE INSTALLED CORRECTLY.	LATORE TO BE CERTAIN T	HAT BEALS	ARE 1867A	9311	CORRECTLY.
HYDRAULIC-A/B BOOSTER	49A1913.3 VALVE-BAFETV RELIEF	UTP-PRT 87-06561-1	98029	CONVAIR	÷ 8	VES BENGON NO 9030
FAILURE MONE-CONTAN P CC/MAXIMUM), TEST	CMTAMINATIOM. DURING PRT INITIAL ACCEPTANCE TEST, THE LEARAGE RATE WAS 886 CC/MIM. (SPECIFICATION IS Test specimen mader 303-0415, refer to par 3344.	CE TEBT, TH <b>E LEAKANE</b> R RR 3544.	3	O CC/NIM.	ĝ	CIFICATION 18
CORRECTIVE ACTION -	CORRECTIVE ACTION - FAILURE AMALYSIS REVEALED THAT CONTAMINENTS WERE FOUND IN MALVE, THE MEXT ES VALVES RECEIVED WI L HAVE 100 PCT INSPECTION FOR CONTAMINATION.	ANINENTS NERE FOUND IN	WALVE. TH	C NEXT 25	46	ES RECEIVED WI
MYDRAULIC-A/B	A-99-04-4836-F BOOSTER ACTUATOR ASSENDLY	FAR E7-08550-9	1196	FACTORY	ដ្ឋទ	YES HYDRAULIC RESE - #81348 NO ARCH 104700-9
FAILURE MODE-FAILET . MUN KEPORTED ABOM E RESPONSE OF THE TO PER OPERATION OF SE	FAILURE MODE-FAILED DURING OPERATION, EXCESSIVE VIBRATION AND MUN OCCURRED AT BOOGFSI, THEN STOPPED AT EDOUPSI. MAX Hum reported above 120 decrees F. and with smaft fully extended. Extensive testing confirmed Loud MAN. This was th Response of the torgue motor annature to addeps sid. Of benconflifter signal and is not considered mariful to Pro- er operation of servicylinder.	OH AND HUM OCCURRED AT EXTENDED. EXTENDINE T F BENVOMMELIFIER BIGHM	1 3000P81. ESTING CON	THEN STOP FIRMED LO IOT CONSID	¥ 2 3 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	T ECCOPSI. MAN M. THIS MAS TH MARNETE, TO PRO
CORRECTIVE ACTION-VENDOR MADE 64D101 CHANGING NOTORIOUNTING 9949 ADVISED FACTORY PERSONNEL.	TICH-VENDCR MADE A DESIGN INPROFERENT IN AREA OF THE TORGUE MOTOR EFFECTIVE ON BERVOYALVES BUILT AFTER NG MOTORNOLATING SCREWS TO A HEX HEAD TIPE TO ALLOW MORE POSITIVE, MOUNTING AND TORGUING, RAR A-99-04-ACTORY PERSONNEL NOT TO REJECT LOUD BERVOYALINGERS BEFORE COMBILITING COMISSANT DESIGN OR FAILURE ANALY	MEA OF THE TORGUE MOTO TO ALLOM MORE POSITIV TLINDERS BEFORE COMBA	R SCHECTIVE SCHOOL	E ON BERV AND TORG ZANT DESI	ST ST	SERVOVALVES BUILT AFTER TORGUING, RAR A-89-04- DESISM OR FAILURE ANALY
HYDRAULIC-A/B BOOSTEP	A-90-04-4634-F BOOSTER ACTUATOR ABREMBLY	FAR E7-08590-0	11 of 640 688	FACTORY	i e	VES NYDRALIC RESE 001830 NO ARCH 104700-0
FAILUNE MODE-FAILE UT APPLICATION OF EI THE RESPONSE OF THE	FAILURE MODE-FAILED IN OPERAITON, ENCESSIVE VISRATION AND MOISE OCCURAND. THE SERVO CYLINDER WONTS THE EMSIVE WITHOUT AND LOSS OF ELECTRICAL SIGNAL, TEST ANALYSIS REVEALED MUM AND MOISE EMANATING FROM THE SERVOCYLINDER WHICH IS THE RESPONSE OF THE AIS SIGNAL. THIS MOISE WAS LOUCER THE MASSIVES OF THE AIS SIGNAL. THIS MOISE WAS LOUCER THE MASSIVE AND MOISE WAS CONCURS. SIGNALS REFRECT OF THIS MOISE. IT WAS AN ADMINIST THE REPRESENTED THE REPRECT OF THIS MOISE. IT WAS	ND NOISE OCCURRED. THE LEG HUM AND NOISE EMAN . GITHER IMPARTED BY TH E HAS CONDUCTED TO DE'S	E SERVO CTI MITING PRO HE AIG SIGN TERNINE THE	THE BERY AND THE BERY THE BAL. THE B	S S S S S S S S S S S S S S S S S S S	R EMBINE MITHE INDEX WHICH IS I WAS LOUGER TO IS NOISE, IT W

CORECTIVE ACTION-FAR A-88-04-8848 MAS INITIATED TO INFORM PACTORY PERSONNEL THAT BUBJECT BHOULD NOT BE UBED AS CAU Be for servocylinder rejection before consulting cognizant design or failure analysis personnel.

GENERAL DYNAMICS CONVAIR DIVIBION

15 JUN 1966

					12000			72 82 82 82 82 82 82 82 82 82 82 82 82 82	
	VENICLE SITE PRI VENDOR NAME DATE DIF TIME DIF OTH VENDOR PART NO	YES HYDRAULIC RESE HO ARCH 104700-1	ETO LOW STATE TRANSDUCER. SI ER RETAINED NO ERISTIC. THE P	IS WITH THE NAME IS THE TAPE ON SEC.	VES SERVONIC NO 2092-0401	AGE WAS CAUSED GOOD PSIG HYDRA	WENT CASE WIL	VES HYDRAULIC RESE ND ARCH 104700-0	O INDICATIONS ISTED OUT OF LE
	2 5 2 5	ត្តិទ	SAIN SABUK SACC	5 F	<u> </u>	35	E Ast	ž 8	A S S S S S S S S S S S S S S S S S S S
	117E	FACTORY	00-9EGEO T A HIGH NILED TAKE R THIS CH	FAILURE	3/ <b>03</b>	RACE. THE RACK ENVO	ALSO THE TO REDUC	FACTORY	. PART 7.
¥	VEHICLE DATE DIF	63907	PROCEDURE PLAINED BY OF THE PA	AECOMEND 8 18 CHLY	940816	C OIL LEA	ACTURED. (7-60543-1	1160	-96463-5E Dynamic N
IN. IC STSTEN-AIRBON	DIF DATA SOURCE PART NUMBER	PAR 87-08550-7	ABAY REJECTED PEN IN CONLD CHLT BE EX BEGAL: THE PROSE IN THE ALLOY INKY :	and dent to verdon Referencement	E7-03543-1	D EXTERNAL MYDRAUL! MAZED ONTO THE TUB 1002.	JURDON TUBE THA? FY	FAR 27-06930-9	AF PER PROCEDURE ET
DIFFICULTIES REVIEW-HYDRAULIC SYSTEM-AIRBORNE	TEST/REPORT NUMBER FASLED COMPONENT NAME	SLV-AS-D4-4837-F ACTUATOR ASSEMBLY, PEEDBACK TRANSD 27-D855G-7 Ucen	FAILURE WOE-FAILED DURING OPERATION-BI PITCH SERVOCTLINDER ABSY REJECTED PEN PROCEDURE 00-9EDED-1 DUE TO LOW BIATI C GAIN OF THE SERVO LUOP. TEST ANALYBIB INDICATED THE LOM GAIN COULD ONLY BE EXMAINED BY A HIGH GAIN TAANBOUCER. BI NEE THE FEEDBACK SIGHAL IS IN OPPOSITE PHASE FROW THE COMMAND RIGHAL: THE PROBE OF THE FAILED TAANBOUCER RETAINED NO RE MAGHETISH THAN OTHER PROBES TESTED. POSSIBLY LOW CHONTUM IN THE ALLOY MAY / CCOUNT FOR THIS CHARACTERISTIC. THE P ERCENTAGE OF CHROMIUM WAS BELOW THE LIMITS BET FOR 41D STEEL.	CORRECTIVE ACTION-RELIABILITY ACTION REPORT SLV-AS-04-3557 NAS SENT TO VENDOR RECONGENDING DISCUSSIONS WITH THE NAME Veacturer concrning lack of proper netal composition with their suppliens. This is only failure of this type on sev Eral Thousands of this type transducer used.	69A3166.8 Hydraulic Pressure Smitch/Herfill e7-035A3-1 Sealed Hicrosmitch	FAILURE MODE-STRUCTURAL-DURING LIFE TEST ALL TYREE UNITS MAD EXTERNAL HYDRAULIC OIL LEAKAEE. THE LEAKAGE WAS CAUSED By a crack in the Bourdon tube at the Joint Where a cap is brazed onto the tube. This crack empores sood psig mydra LLIC oil to the case. Ref. FPR nr f-3061-31 s/n 1000; 1001; 1002.	CORRECTIVE ACTION-THE VENDOR WILL REDESIGN THE END OF THE BOURDON TUBE THAT PRACTURED. ALSO THE INSTRUMENT CASE MIL L BE REDESIGNED TO WITHSTAND A 5000 PAIG BURST PRESSURE, REVISE SPECIFICATION 27-DOS43-5 TO REDUCE AMPLITUDE OF THE 5000 PSIG PRESSURE PULSATION. REF. PR 654-2-323 A.	A-AS-04-4813-F ACTUATOR	FAILURE MOE-OUT OF TOLERAME-DURING FINAL CHECKOUT BY MARCHE PER PROCEDURE 87-96463-16. PART 7. NO-60 INDICATIONS WERE MONITORED ON INACTIVE WALL, AND STATIC GAIN TESTS. PAILURE WAS DUE TO THE DYMANIC MALL BEING ADJUSTED OUT OF LIMITS MITH AN ALG TYPE ANTLIFIER.
	STEN SUB-STEN	MYDRAULIC-A/B GOOSTER	FAILURE MODE-FAILED DUMIN C 6AIN OF THE SERVO LUOP. MCE THE FEEDBACK SIGNAL ES NE NACHETISM THAN OTHER PR ERCENTAGE OF CHROMIUM WAS	CORRECTIVE ACTION-RELIABILITY ACTION REPORT UFACTURER CONCERNING LACK OF PROPER HETAL COLLEGAL THOUSANDS OF THIS TYPE TRANSDUCER USED.	HYDRAULIC-A/B BCOSTER	FAILURE MODE-STRUCTURAL-D BY A CRACK IN THE BOURDON ULIC OIL TO THE CASE. REF.	CORFECTIVE ACTION-THE VENDOR WILL REDESIGN THE EN L BE REDESIGHED TO WITHSTAND A 5000 PSIG BURST PRE 3000 PSIG PRESSURE PLLSATION. REF. PR 654-E-323 A.	MYDRAULIC-A/B Booster	FAILURE MOE-OUT OF TOLERANCE-D MERE MONITORED ON INACTIVE MALL, MITS MITH AN ALG TYPE ANTLIFER,

FAILURE MODE-CONTAMINATION. DURINGCHECKOUT IN THE MAINTENANCE BUILDING THE UNIT FAILED THE PRESURNCY RELPONAE TEATS. THERE MAS ALSO VISIBLE LEARAGE OF HYDRAULIC OIL. FAILURES DUE TO FISERS ON THE O-RING SEALS AND IN THE OIL.

CORRECTIVE ACTION-YEAR TO HYDRAULIC RESEARCH TO ADJUST THE MULL WITH BOTH THE TOC AND THE A16 BERYD AMPLIFIERS. 60/ C Receiving inspection test procedures were revised to enere the actuators with both the a16 and the loc servo amplifiers.

VES HYDRAULIC RESE HD ARCH 104700-1

Ē

3380 4040

FAR 87-08550-7

LV-6D-D4-4814-F ACTUATOR

MYDAAULIC-A/B BOOSTER

SCHERAL BYNAMICS CONVAIR BIVISION

11 100 1000

	PILLICALIES HEALES	DIFFICULTIES REVIEW-HYDRALLIC STRUK-ALMOOREL					
8787EN 846-8787EN	TEST/REPORT HUBER PAILED CONFORMY MAIN	DIF DATA BOURCE PART HUNDER	VENICLE SATE DIP	318 3411 3418	Z ö	VEHICLE BITE PRI VENDOR MANE SATE BIP TIME BIP OTH VENDOR PART NO	
							:
CORRECTIVE ACTION O ONE DROP PER 10 MIPERS.	TOK-THE HIBBILE HYDRALLIC BYBTEH WAS PLUBMED UNTIL CLEAN. THE SPECIFICATION LEARANG RATE WAS OPENED IN CYCLES AND ONE DROP PER 12 HOURS SMILE STATIC. TEPLON WIPERS NEAR RECOMMENDED TO REPLACE THE PELT	MED UNTIL CLEAN. THE 8 STATIC: TEPLON WIPERS	MECIFICATION MECON	M LEARAGE WENDED TO	7 D	E MAS OPCINED T	
HTDRAULIC-A/B	PRESSURE BASTCH, O-RING	UTP-GUAL/PPT B7-06548-1	\$0\$070	>/ <b>9</b>	2 ខ	VES SERVONIC NO E092-0801	i
FATURE MODE-OUT PARTIALLY OUT OF	FAILURE MODE-OUT OF TOLURANCE- AFTER THE OIL IMMERBION TEBT THE O-RIME IN THE ELECTRICAL COMMECTOR HAS SWOLLEN AND MARTIALLY OUT OF ITS RETAINING GROOVE, REF. FPR NR F 304041 4000.	7287 THE O-RING IN THE DST 8/N 1000.	ELECTRICAL	. COMECT	3 8	S SHOLLEN AND	
CORRECTIVE ACTION	CORRECTIVE ACTION-NOME-NOT CONSIDERED A PAILUME DECAUDE THE O-RING IS ONLY A BUST BHIELD AND THE UNIT IS OPERABLE. EF. FR 654-2-203.	THE O-RING IS ONLY A	DUST BHIELE	AND THE	5	78 OPERABLE.	
HTDRAULIC-A/B BODSTER	LV-90-04-4813-F ACTUATOR-8008TER	FAR 27-06550-7	32£0 640€05	<b>E</b>	20	VES MYDRAULIC RESE ND ARCH 104700-1	***
E TO FELT FIBERS	FAILURE HODE-CONTANIMATION. DURING OMEGROUT THE 8-1 YAM BERVOCYLINDER AIMEDBLY LEAKED HYDRAULIC ONL. LEARANE HAS DU : to felt fibers on the o-ring beals.	SERVICYLINDER ASSEDIAL	Y LEAKED W	DRAW.IC	96 L.	LEARAGE MAS DU	
CORRECTIVE ACTION-THE HYDRAULIC URB FROM EACH DYNAMIC SEAL WHILE	STSTEM STATIC	MAS PLUMED. THE SPECIFICATION LEARANE RATE WAS ON ONE DROP PER 10 CYCLES IN DYNAMIC APPLICATION.	RATE MB C	<b>PEKED</b> TO	ğ	DROP PER 12 NO	
HYDRAULIC-A/B	L4-80-04-4823 ACTUATOR O-RIME	FAR 87-06550-7	3320	<b>4</b> 5	5 9	TES HYDRAULIC RESE SESSIS ND ARCH 104700-7	<u> </u>
FAILURE MODE-CON CAUSED BY A FORE	FAILUNE MODE-CONTANINATION. ACTUATOR LEAKED FROM AFT PRESSUNE PORT DURING CHECKOUT OF NESSILE 35g D THE FAILUNE MAS Caused by a foresem particle baideing the O-Ring of the Fabrication Port Plus.	ESSURE PORT DURING CHE FABRICATION PORT PLUS	CROUT OF BE	1001L 35		PE FAILURE WAS	
CORRECTIVE ACTION	II ON-NONE. YENDOR HAD CHANGED MANUFACTURING PROCESS ON UNITS OF LATER MANUFACTURE PRECLUDING THIS TYPE	6 PROCESS ON UNITS OF	CATER MANU	ACTURE P	שנכרו	DIM THIS TYPE	
HYDRAULIC-A/B BOODIER	LV-A8-04-4817-F ACTLATOR/VALVE-BERVO	FAR 27-06550-7	90907	PACTORY	£ 8	VES HTDRAULIC RESE NO ARCH 104700-1	
FAILURE WODE-COR	FAILUNE WOE-CONTAMINATION. DURING PINAL CHECKOUT OF THE ATLAB MIBBILE THE ACTUATOR ABBEMBLY ACTIVE AND INACTIVE MU LL PEEDBACK WOLTAGES MERE ABOVE BPECIFICATION LIMITS, PEEDBACK TRANSDUCER OUTPUT AT MULL MEASURED " 100 VOLT HACTIV E AND 0.550 WOLT ACTIVE, PAILUNE MAB DUE TO PARTIALLY RESTRICTED C-1 PRESSURE BROPPING ORFICE THAT AS PARTIALLY PLU	C ATLAB MIBBILE THE AC EDBACK TRANSDUCER CUTP BTRICTED C-1 PRESCHE	TUATOR ASSE UT AT MULL DROPFING Q	MEABURED PICE THA	¥	AND INACTIVE NU- 100 YOLT HACTIV AS PARTIALLY PLU	

PASE 0044

COARECTIVE ACTION-NOME.

SENERAL BYNAMICS CONVAIR BIVISION

19 1UN 1966

•	100 100 61	DIFFICULTIES REVIEW-HYDRAULIC SYSTEM-AIRBORNE	AULIC SYSTEM-AIRBOR	¥					
·	818-878EM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOUNCE PART NUMBER	WHICLE DATE DIF	11 0 THE	ž 5	WENICLE BITE PRI VENDOR MANE	¥ =	
	GGED FROM THE UPSTREAM SIDE BY METALLIC PARTICLES.	DE BY METALLIC PARTICLES.							
	CORRECTIVE ACTION-VCAR TO HYDRAULIC IMANTS. HYDRAULIC RESEARCH MOVED ALL	CORRECTIVE ACTION-VCAR TO HYDRAULIC RESEARCH TO COMPLETELY DISASSEMELE ALL SERVO VALVES AND EXAMINE THEN FOR CONTAN Mants. Hydraulic Research Moved all Assembly and test operations to a super clean room.	DISABSENELE ALL SER TIONS TO A SUPER CL	VO VALVES EAN ROOM.	AND EXAM	Ä	HEN FOR CC	***	
	HTDRAULIC-A/B BODSTER	6943166.E HTDRAULIC PRESSURE SWITCH	UTP-QUAL /PPT 87-06545-8	10007	2/ <b>C</b>	50	TES SERVONIC NO 2092-0805		•
	FAILURE MODE-OUT OF SPECIFICATION. A KADIATED INTERFERENCE TEST, RUF.	ICICATION. THE UNIT EXCEEDED MIL-1-20000 SPECIFICATION REQUIRENTS AT THREE FREQUENCIES IN Test. Ruf. Task mistory no. 12 8/N 1001.	28600 SPECIFICATION 1001.	REDUINEME	NTB AT TO		FREQUENC 16	<u> </u>	
	CORRECTIVE ACTION-A WEETI 6600 EXISTS OR IS REGUIRED	CORECTIVE ACTION-A MEETING WILL BE CALLED WITH APPROPRIATE PEOPLE ATTENDING TO DETERMINE IF A DEVIATION TO MIL-1-2 600 Exists OR IS REAURED OR IF A FILTER MAS TO BE ADDED TO THE UNIT OR SYSTEM.	APPROPRIATE PECPLE ATTENDING TO BE ADDED TO THE UNIT OR SYSTEM.	O DETERNIN	E 37 A 9	EVIAT	ION TO MIL	<b>*</b>	
	MYDRAULIC-A/B BOOSTER	LV-99-04-4804-F ACTUATOR/O-RING BEAL	FAR 27-06350-7	0-022 0-035	FACTORY	<b>1</b> 8	YES HYDRAULIC RESE NO ARCH 104700-1	J. J. J. J. J. J. J. J. J. J. J. J. J. J	\$1050
<del></del>	FAILURE MODE-LEAK-EXTERM ND ADJUSTHENT LOCKING NUT. COMPRESSING THE SEALING O- PIN MATERIAL MAS EXTRUDED	FAILURE MODE-LEAK-ENTERMAL, DURING FIMAL ASSDOLY CHECKOUT THE ACTUATOR WAS LEAKING NYDRAULIC FLUID AROUND THE ROD E ND ADJUSTMENT LOCKING NUT. LEAKAGE MAS CAUSED BY INCORRECT ASSEMBLY. LOOSE NOTZLE PRESSURE TEST PORT PLUSS MERE NOT COMPRESSING THE SEALING O-RINGS. PRESSURE AND RETURN PORT SEALING O-RINGS WENE DAMMED DURING INSTALLATION. POSITION PIN MATERIAL MAS EXTRUCED DURING INSTALLATION.	NE ACTUATOR WAS LEA BSEELY, LOGGE HOZZ ALING O-RINGS VENE	KING MYDRA LE PREBOUM DAMAGED DU	ULIC PLU E TEST P RING ING	TALLA	OUND THE S LUGS MERE TION: POSI	1 2 E	
	CORRECTIVE ACTION-VCAR TO MBLY TECHNIQUES TO ELINIMA E PARTS.	COKRECTIVE ACTION-VCAR TO HYDRAULIC RESEARCH INFORMING THEM OF THE FAILURE AND REBUESTING THEM TO REVIEW THEIR BLY TECHNIQUES TO ELIMINATE SIMILAR FAILURES- HYDRAULIE RESEARCH INPLEMENTED CLOSER INSPECTION SURVEILLANCE OF PARTS.	I OF THE PAILURE AND MEANCH INFLEMENTED C	REGUESTIN LOBER INSP	F THEN T	D REV	IEN THEIR LLANCE OF	A386 THES	
	MYDRAULIC-A/B BODSTER	69A1909.3 Valye, gapety relief	UTP-BLT 87-06870-1	131070	CONVAIR	20	YES VINSON HF6. NO A-80133-1		1
	FAILURE MODE-OUT OF SPECIFICATION. DURING BLT PRO 10 Min.) TEST SPECIMEN 307-0968, REPER TO PAR 209.	FAILUME MODE-OUT OF SPECIFICATION. DUMING BLT PROOF CYCLE, MESEAT DIFFERENTIAL PRESSURE NAS 63 PSID ISPEC. 18 65 PS ID MIN.) TEST SPECIMEN 307-0662. REFER TO FAR RUS.	MEDEAT DIFFERENTIAL	Janes Jan	2	97	9MG. 39 (	2	

SENERAL BYNAMICS CONVAIR BIVISION

19 JUN 1966

# COMMAIN BINIBION

9901 NOT 91	DIFFICULTIES REVIEW-HYDRAULIC SYSTEM-AIRSON-K	AULIC SYSTEM-AIRBOR	¥			
814-878EN 844-878TEN	TEST/REPORT MUMBER PAILED COMPONENT NAME	DIF DATA BOUNCE PART HUMBER	WHICLE DATE BIF	11 0 1 F	PRI VENDOR NAME OTH VENDOR PART NO	<b></b> _
MYDRALLIC-A/B BODSTER	GBA1910.5 HTDRAULIC PUMP	UTP-PRT 27-08560-1	*1807	CORVAIR	VES VICKERS NO AA-63684-8-EA	•
FAILURE MODE-LEAK EXTER THIS UNIT ALSO FAILED TO	FAILURE MODE-LEAR EXTERNAL. B/M ROS-DOGO FAILED TO MEET CABE DRAIM LEARAGE MEAUIREMENTS OF D.O GON DURING PRI-1AT. This unit also failed to meet pear transtent pressure requirements. Meper to ppr-4ess. Bystem effect-mome.	E DRAIM LEARAGE MEG EDENTA. REFER TO FFI	VIREDENTS 1-4281.	•	DURING PRT-1AT.	
VEHICLE EFFECT-NOME.						
CORRECTIVE ACTION-RETER TO FRES4-E- EAR TRANSIENT PRESSURE REGUIREMENTS.	CORRECTIVE ACTION-REFER TO PRES4-2-200. THE TEST SETUP AND SPECIFICATION REVISED BY ECP 7000 TO RELAK LEAKAGE AND P An transient pressure reguirements.	DPECIFICATION NEVIN	D BY ECP	M 07 •••	LAK LEAKAGE AND P	
HYDRAU, IC-A/B	89A1910.4 Hydraulic Puge	UTP-8LT E7-06560-1	131018	CONVAIR	YES VICKERS ND AA-60684-R-2A	<b>8004.89</b>
FAILURE HODE-OUT OF SPI	FAILUKE MOCE-OUT OF SPECIFICATION, PEAR TRANSIENT PRESSURE WAS 4143 TO 4454 PRIG UNILE COINS FROM FULL FLOW TO NO P Low, to full plow, limit is 4000 psis, time was 0.058 bec. Limit is 0.050 bec. Same11-5540.	NE 4343 TO 4494 PB)	16 WILE 6	01 at 1204	FULL FLOW TO NO F	
CORRECTIVE ACTION-DEPT	684-0 TO SUBMIT ECP 7688 TO REVISE TEST LEVELS.	EST LEVELS.				
HYDRALIC-A/B BOOSTER	66A1910.3 HTDRALLIC PUR	UTP-ETT E7-06566-1	127078	COMMAIR	YES VICKERS NO AA-60554-R-EA	•
FAILURE MODE-OUT OF BPECIFICATION.	FAILURE MODE-OUT OF SPECIFICATION. S/N BOI- <b>geb?, Pear Pressure</b> tran <b>sients enceded allomble max 4000Psis. Peak Pre</b> Isures ranked from 4: <b>ge</b> to 4349Psib.	LAC TRANSIENTS EXCE	DED ALLO	ALE MX 4	000P316. PEAK PRE	
CORRELITYE ACTION-DEPT	884-0 TO BURNIT ECP 7668 TO REVISE TEST LEVELS.	EDT LEVELB.				
MYDRAULIC-A/B BOOSTER	BOATBIO.S HYDRAULIC PUST	U7P-E1T 87-08366-1	027070	COMAIR	VICKERS AA-60884-R-EA	
FAILURE MODE-OUT OF BPE ROM 4156 TO 4492P816. UM	'UF SPECIFICATION. S/N BIE-0377 PEAR TRANSIENT PRESSURES ENCEEDED ADGOPSIG LIMIT PRESSURES RAMSED P 1816. Unit also failed full Plow to ND Plow Limit of D.OSSEC, Times were D.OSG and D.OSASEC.	PEAR TRANSIENT PRESSURES EXCEEDED 4000PSIG LIMIT PRESSURES TO NO PLOW LIMIT OF 0.0538Cc. THES MERE 0.060 AND 0.0548CC.	45 4000F8	16 LIMIT #	RESSURED RANGED P D.0540EC.	
CORRECTIVE ACTION-DEPT	CORRECTIVE ACTION-DEPT 664-0 TO BUBMIT ECP 7649 TO REVISE TEST LEVELS.	EDT LEWELS.				

GENERAL DYNAMICS CONVAIR DIVISION

115 JUN 1986

ð	
1 X 1 E	
-	
CONVAIR	
8	

		DIFFICULTIES REVIEW-N	DIFFICULTIES REVIEW-WYDRAULIC SYSTEM-AIRBORNE	740				
<u></u>	818-875R	TEST/REPORT HUMBER FAILED COMPOMENT NAME	DIF DATA BOUNCE PART NUMBER		817E 71ME DIF	# 5 E 2	WENTELE BITE PRI VENDOR MANE BATE BIF TIME BIF OTH VENDOR PART NO	
ž 2	HYDRAULIC-A/B BOOSTER	GSA1910.3 HYDRAULIC PUMP	UTP-ETT 87-08566-5	417079	CONVAIR	ភូទ	VES VICKERS NO AA-60884-A-EA	•
	FAILUME MODE-OUT OF SPEC 6 ALLOMBLE, MAX 4000F316.	FAILUME MOE-OUT OF SPECIFICATION OR TOLERANCE 8/N 208-0240 PEAK TRANSIENT PRESSURES MEASURED NEME 4162 TO 4537 PSI • ALLOMABLE,MAX 4000F316.	3840 PEAR TRANSIENT P	MESSURES ME.	34 G2W-61	¥	62 10 4557 P81	
j	CORRECTIVE ACTION-DEPT 6	CORRECTIVE ACTION-JEPT 691-0 TO SUBMIT ECP7869 TO REVISE TEST LEVELS.	E TEST LEVELS.	!	:			
£ 8	HTDRAULIC-A/B Booster	6941910.4 HYDRAULIC PUMP, BOOSTER	UTP-PRT 27-08968-1	8177	CONVAIR	ž 8	VES VICKERS NO AA-60694-R-EA	•
	FAILURE MODE-OUT OF SPEC TO REGULATE IN THE REGUIR	FAILUME MODE-OUT OF SPECIFICATION. B/M 211-5540 FAILED TO MEET TRANSIENT PRESS REGUIREMENTS OF 4000P816 AND FAILED To regulate in the reguired time 0.055EC. From Full Plow to ND Flow during lat. FPR 4175.	TO MEET TRANSIENT PRE TO NO FLOW DURING IA	SS REQUIREM T. FPR 4175	. Po 4.14	000	16 AND FAILED	
	CORFECTIVE ACTION-REFER	CORFECTIVE ACTION-REFER TO FR 634-2-200, ECP 7000 SUBMITTED REVISING SPECIFICATION AND TEST BET UP TO RELAM SPEC. R Guirements.	TTED REVISING BPECIFI	CATION AND	TEST 8£7	\$ <b>5</b>	RELAN SPEC. R	
EX	HYDRAULIC-A/B BOOSTER	LV-9D-04-4780F ACTUATOR/VALVE-9ERVO	FAR 27-00350-7	3900 640415	Ę	÷ 8	NE HYDRAULIC RESE 695550 NO ARCH 104700-1	2
	FAILURE MODE-STRUCTURAL. EARED ON CARD 84 FOR THE MEINE WALL. THE TORGUING A SHOCK PULSE ON THE END	FAILURE WODE-STRUCTURAL. DURING CAPCHE CHECKOUT IN THE MISSILE ASSEMBLY AND MAINTEMANCE SHOP A MO-60 INDICATION AND ASSEMBLY AND ON CARD 64 FOR THE 8-1 PITCH SERVOCYLINDER. THIS WAS DUE TO OUT OF SPECIFICATION LIMITS FEED BACK VOLTAGE AT E WELKE WULL. THE TORBUING HOTOR FLAPMER VALVE WAS NOT CORRECTLY BALANCED. BELIEVED TO HAVE JAMBED OUT OF POSITION BY A SHOCK PULSE ON THE END OF THE BERVO CYLINDER PRICE TO INSTALLATION ON THE MISSILE.	MISSILE ASSCHBLY AND AS DUE TO COUT OF SPECTIC RECTLY BALLNCED. BELLINSTALLATION ON THE P.	MAINTEMANCE IFICATION L EVED TO MAN IBBILE.	SHOP A PERINITS FEE	9 9 5 2 1 2 8 4 6	AND MAINTEVANCE SHOP A NO-SO INDICATION APP SPECIFICATION LIMITS FEED BACK VOLTAGE AT E BELIEVED TO HAVE JAMBED OUT OF POSITION BY THE MISSILE.	
	CORRECTIVE ACTION-6D/C	CORRECTIVE ACTION-6D/C INFORMED ALL APPROPRIATE PERSONNEL OF THE FAILURE AND THE CAUSE AND MERE CAUTIONED TO USE GR EATER CARE TO AVOID UNDUE SHOCK TO SERVOCYLINDERS. 350D RENORED FROM 1870.	EL OF THE FAILURE AND RENORMED FROM 1870.	THE CAUSE	AND NERE	CAUT	ONED TO USE GA	
ZX	NYDRAULIC-A/B BOOGTER	A-9D-10-245-F BOOSTER HTBRALIC TANK	FAR 27-06551-3	£000 €40407	5	<b>1</b> 0	TES BENBON NFS NO 8865F	101
	FAILURE MODE-ERRATIC OP	FAILUME MODE-ERRATIC OPERATION DUZ TO STICKIMS PISTON PESULTING PROM A POSSIBLE OVER PRESSURIZATION.	EBULTING FROM A POBSI	BLE OVER PR	Essual Za l	ĕ		
	CORRECTIVE ACTION-60/C C	CORRECTIVE ACTION-60/C ORIGINATED OPERATION CLASP. SURVEY 47-64 DENOMSTRATED OVER PRESSURIZED TANKS WILL BE FOUND A D WILL BE REJECTED.	EV 47-64 DENOHBTRATE	OVER PRESS	W. 205 1/		HIL BE FOWD A	<del></del>

SEMERAL BYNAMICS CONVAIR DIVISION

\* •

\*\*\*\*

				3			1				
	WENTELE BITE PRI VENDOR NAME DATE DIF TIME BIF OTH VENDOR PART NO	FACTORY VES VICKERS NO AA-60684-R-EA	URFACE.	WTR YES HYDRAULIC RESE, 000000 NO ARCH 104700-1	AINTENANCE SHOP AS A RESULT AS DUE TO SMALL MICAS IN TH	PS PER 24 HOURS UNDER STATE DYNAMIC CONDITIONS.	WIR NO HYDRAULIC RESE SSISSES YES ARCH 104700-1	IN THE PITCH PLANE, AT SOCP	IN CHECKING THE HISSILE EL	PACTORY YES HYDRAULIC RESE 000088 NO ARCH 104700-1	SE OIL WE VIBUALLY NOTED L
¥	WENICLE DATE DIF	1100	K with 8	3300 640403	DELT MO P	A TO E DEC	3500	T CTCLED.	CONCURADO	804-0 640330	IONED BECAU IGHTLY ABOV
AULIC SYSTEM-AINBOM	DIF DATA BOUNCE PART MUNDER	PAR 27-0886-1	AT THE INLET PLANE	FAR 27-06550-7	NISSILE AT THE ASSET IN 24 MOURS. BLIGHT	GLERANCE PROM 5 BRC	FAR 87-08880-7	DAINE HAS VIOLDITA	ED OF REBULTS- THEY	FAR 27-06350-7	HE ACTUATOR WAS RED SBURE, LEAK WAS BLI
DIFFICUATIES REVIEW-HADRAULIC SYSTEM-AIRBORNE	TEST/REPORT WAMER PAILED COMPOMENT NAME	A-A8-10-232-F HTDRAULIC PUMP	FAILUME MOJE-LEAK ENTERMAL. THE PUMP LEAKED HYDRAULIC PLUID AT THE IMLET PLANGE MATING BURFACE. Corrective action-pailume compined vendor imitiated action to prevent improper machinime of inlet plances and chan sed procedure to require a 24 hour static leak test.	LV-90-04-4783-F ACTUATOR/8EAL	FAILURE MODE-LEAR-EXTERNAL. THIS UNIT WAS REMONDE FROM THE MISSILE AT THE ASSEMBLY AND MAINTEMANCE SHOP AS A RESULT Of a visual inspection that noted learage of Beneral Drops in 24 hours. Blight Learage has due to small micks in th O-Rims seals.	CCRRECTIVE ACTION-SPECIFICATIONS REVISED TO WIDDN LEARAGE TOLERANCE FROM 1 BROP TO 2 BROPS PER 24 HOURS UNDER STATS C CONDITIONS, AND FROM 1 DROP PER 23 CYCLES TO 1 DROP PER 10 CYCLES PROM EACH SLAND UNDER DYNAMIC CONDITIONS.	LV-90-04-4738F BOOSTER SERVOCYLINDER	FAILURE MODE-ERRATIC OPERATION. UNIT REJECTED UNED THE D-1 EMBINE UNB VIOLENTLY CYCLED, IN THE PITCH PLANE, AT 18CP For 18 seconds.	COKKECTIVE ACTION-FAILURE MAS NOT CONTRINED. WIR NERE ADVISED OF RESULTS- THEY CONCURNED IN CHECKING THE HISSILE EL Ctrical system to locate sounce of Problem.	LV-A9-N4-4764-F ACTUATUM/3EAL	FAILURE MOCE-LEAK-ERTERMAL, DURING FINAL MISSILE CMECKOUT TME ACTUATOR NAS REMOWED SECAUSE OIL NAS VISUALLY MOTED L Eaking at the seal naile the mydraulec statem has at low pressure, leak nas bligmtly abowe specification learage rat E due to a small prick in the O-RING Deal,
	SYSTEM SUS-SYSTEM	HTDRAUL IC-A/B BOODTER	FAILURE MONE-LEAR EXTERNA CORRECTIVE ACTION-FAILURE GED PROCEDURE TO REQUIRE A	HTORAUL C-A/B BOOSTER	FAILURE MODE-LEAK-EXTERNO OF A VISUAL INSPECTION TO E O-RIMG SEALS.	CCRRECTIVE ACTION-SPECIF.	HYDRAULIC-A/B BOOSTER	FAILURE MODE-ERRATIC OPEN 8 FOR 10 SECONDS.	CORRECTIVE ACTION-FAILURE WAS NOT CONFIRMED ECTRICAL SYSTEM TO LOCATE SOURCE OF PROSLEM.	MYDRAUL [C-A/8] BOOSTER	FAILURE MODE-LEAR-EXTERNAL. DURING FINAL EARING AT THE SEAL WHILE THE MYDRAULIC STEEDUR TO A SHALL PRICK IN THE O-RING DEAL.

CORRECTIVE ACTION-YEAR TO HYDRAULIC MEMEANDH INFORMING THEN OF THE PAILURE AND CAUSE, GG/C RECOMMENDED THAT REMORK PROCEDUMES AND THE REMORK AREA BE REVIEWED TO ENGURE OF IEM O-RIMBS.

CONVAIR BIVISION

DIFFICULTIES REVIEW-HYDRAULIC SYSTEM-AIRBORNE

18 JUN 1866

A Marin

	••••		******		2		***
PRI VENDOR NAME OTH VENDOR PART NO	YES HYDRAULIC RESE NO ARCH 104700-1	10 A MU	VICKERB, INC AA-60684-A-EA	17 OF 400	BEAL		WES HYDRAULIC RESE SOISOS NO ARCH 104700-1
II VENDO	18 HYDRAUL! ARCH 104700-1	TRIBUTEG		UNE LIN	YES CIRCLE BEAL NO 78-319		ARCH 104700-1
AT DITE OTH	FACTORY YES	E MB A1	CONVAIR VES	247 PRESI	FACTORY YES		
=		T 741LU	1	TAN 16 16 16 16 16 16 16 16 16 16 16 16 16	_	<u>;</u>	ž 5
	8010 8010 8010 8010 8010 8010 8010 8010	ACE. THE	54035	TO MEET DOT CYCI 101. TE	10F 6403g3	INTEGRI	280 <b>73</b>
DIF DATA BOUNCE PART NUMBER	•	F TOLERA	1	FALUED HTIAL PR	:	WE MEAT.	<u>.</u>
DIF DA	FAR 27-06890-7	ULL OUT (	UTP-ETT E7-00366-1	TO1-DEB7.	FAR 27-06565-1	T OFF VAL	FAR 87-06550-7
~ ¥		WCTINE W.		12-0377, 1 8ECOMDS C		116 POPE	
TEST/REPORT NUMBER FAILED COMPONENT NAME	LV-08-04-4748F ACTUATOR BCREM	FAILURE MODE-CUT OF TOLERANCE. UNIT REJECTED FOR INACTIVE MALL OUT OF TOLERANCE, THE FAILURE WAS ATTRIBUTED TO A MU L. SHIFT CAUSED BY A LOOSE POLE-PIECE MOLDDOM FCREW. CORRECTIVE ACTION-THE VENDOR HAD CHANGED PROM A BLOTTED HEAD SCREW TO AM ALLEM SCREW IN AUGUST 1963, SUBSEQUENT TO ME MANUFACTURE OF THIS UNIT.	69A1910.3 HTDRAULIC PURP	FAILURE MODE-OUT OF SPECIFICATION, 3/N 208-0340, 212-0377, 201-0257. FAILED TO MEET TRANSIENT PRESSURE LINIT OF 460 O PSIG AND TO REGULATE FULL FLOW TO NO FLOW IN 0.05 SECONDS DURING INITIAL PROOF CYCLE FPR-4249. CORRECTIVE ACTION-REF. FR 854-2-281, ECP 7668 SUBMITTED TO NEVINE SPECIFICATION. TEST BET UP TO SIMILATE HISSILE CO	A-AB-08-3190F PREUMATIC CHECK VALVE	FAILURE MODE-CONTAMINATION-ALUMINUM PARTICLES HOLDINS POPPET OFF VALVE SEAT. Corrective action-60/c to monitor these valves more closely to insure valve integrity.	LV-80-04-4772-F Actuator, 0-R1M6
BUD-STEN	HYDRAULIC-A/B BOOSTER	FAILURE MODE-OUT OF TOLERANC LL SHIFT CAUSED BY A LODSE PO CORRECTIVE ACTION-THE VENDOR THE MANUFACTURE OF THIS UNIT.	HYDRAULIC-A/B BOOSTER	FAILURE MODE-OUT OF BPECT O PSIG AND TO REGULATE FU CORRECTIVE ACTION-REF. FI	HYDRAULIC-A/B BOSTER	FAILURE MODE-CONTANINATION CORRECTIVE ACTION-60/C 19	HYDRALL IC-A/B BOOSTER

~~~

4

FAILURE MODE-LEAK-EXTERNAL, DURING RECEIVING INSPECTION TESTS IN MISSILE ASSENSLY AND MAINTEMANCE BUILDING THE OCTLINDER WAS FOUND TO BE LEAKING MYDRAULIC OIL FROM BETNEEN THE SEAVO-VALVE AND THE ACTUATOR UNDER STATIC CONDITION. LEAKAGE MAS DUE TO THE THO MOZZLE PRESSURE MONITORING PORT PLUGS FOUND TO BE A MALF A TURN LODGE.

CCRRECTIVE ACTION-HYDRAULIC REBEARCH INSTITUTED MANUFACTURING PROCEDURES AS FOLLOWS. (A) CORRECT BOTTOMING OF TEST PLUG WILL BE CHECKED TO PRECLUDE POSSIBLE INTERFERENCE. (B) SEVEN MAGNIFICATION WILL BE UED TO ASSURE DETECTION AND REMOVAL OF EXTRUDED METAL ON THE LOCKING PIN. (C) ASSENBLY AND TEST PERSONNEL WERE APPRISED OF THE DANAELD OR AIN AND THE NEED FOR CORRECT ASSENBLY. SEDD REMORED PROM 187D.

CONVAIR BIVISION

11 101 1066

A 1 ....

|                                                                                                                         | BIFFICULTIES REVIEW-MYDRAULIC SYSTEM-AIROCRME                                                                                                                                                                                                                                                                                                                                                     | DRAULIC STSTEM-AIRBOR                                                    | ¥                                        |                  |                             |                                               |   |
|-------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|------------------------------------------|------------------|-----------------------------|-----------------------------------------------|---|
| 8787EN<br>8UB-3787EN                                                                                                    | TESTAEPONT HUMBER<br>FAILED COMPONENT NAME                                                                                                                                                                                                                                                                                                                                                        | DIF DATA BOUNCE<br>PART NUMBER                                           | WENICLE BITE PRI                         | 817E<br>71ME 81F |                             | VENDOR MANE<br>VENDOR PART NO                 |   |
| HTDRAULIC-A/B<br>BOOSTER                                                                                                | LV-AS-04-4745F<br>BOOSTER ACTUATOR, O-RING                                                                                                                                                                                                                                                                                                                                                        | FAR<br>27-06330-7                                                        | 2040<br>240321                           | FACTORY          | 1 OK                        | ES HYDRAULIC RESE<br>NO ARCH<br>104700-1      | : |
| FALLURE MODE-CONTANT AS RESULT OF CONTANTM O BE UNDER SPECIFICAT                                                        | FAILURE MOCE-CONTANIMIED. UNIT REJECTED FOR EVIDENCE OF INTERNAL LEAKAGE. FAILURE MAS ATRIBUTED TO O-RIMS DAMME<br>As result of comtanimation with cadhium particles, source of contanimants is unemode, the o-rims quality has found t<br>o be under specification as regards elongation and tensile strength.                                                                                   | INTERNAL LEAKAGE. PAI<br>OF CONTANIMNTO TO US<br>BTREWETH.               | LUNE MO A                                | TTRIBUTE:        | 70 0<br>10 0                | RING DANGE                                    |   |
| CORRECTIVE ACTION-TH<br>PROBLEM MAS REFERRED                                                                            | CORRECTIVE ACTION-THE PROBLEM OF LOW-GUALITY O RINGS IS SEING REVIEWED BY A 66/C DIACMOSTIC TEAM. THE CONTAHINATION<br>PROBLEM WAS REFERRED TO THE FACTORY TO ASSUME CLEAN MYDAAULIC SYSTÉMS.                                                                                                                                                                                                     | EING REVIENCED BY A 66<br>ULIC SYSTEMS.                                  | /C BIAGNO!                               | 111C TEAM        | Ä                           | CONTANINATION                                 |   |
| HYDRAULIC-A/B<br>BOOSTER                                                                                                | 69A3166.1<br>HYDRALLIC PRESSURE BATTCH                                                                                                                                                                                                                                                                                                                                                            | UTP-QUAL/PPT<br>27-06343-1                                               | 640317                                   | ) <b>9</b>       | 20                          | YES SERVONIC<br>NO 2092-0801                  | 1 |
| FAILURE WODE-FAIL TO<br>CONTACT, THE FAILURE<br>IS WAS CAUSED BY THE                                                    | FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TINE- DURING VIBRATION IN THE N-K AKIS THE UNIT FAILED TO MAKE SWITCHING COMTACT. THE FAILUNE OCCURRED AT ZBOCPS, THE CONTACT RESISTANCE MAS GREATER THAN SOD CHMS, ALLOMBLE 4 CHMS MAK. TH S MAS CAUSED BY THE MICROSMITCH CONTACTS, REF. FMR NOT P-3051 B/N 1002.                                                                                    | IBRATION IN THE X-X I<br>STANCE WAS GREATER TO<br>051 B/N 100E.          | LK13 THE US<br>UAR 100 ON                | HT FAILE         | 70 m                        | AKE BUITCHING<br>CHES MAR. TH                 |   |
| CORRECTIVE ACTION- VE                                                                                                   | ON-VENEOR IS CHECKING OUT A NEW HICROBATTCH. REF. FR 654-2-207 AND FR 654-2-207 C.                                                                                                                                                                                                                                                                                                                | H. REF. FR 634-8-807                                                     | ALD FR SM                                | -8-807 C         |                             |                                               |   |
| HTDRAULIC-A/B<br>BOOSTER                                                                                                | 89A1168.1<br>HTDRAULIC PRESSURE BATTCH                                                                                                                                                                                                                                                                                                                                                            | UTP-GUAL/PPT<br>E7-06543-1                                               | 640317                                   | 3/ <b>03</b>     | 10                          | SER VONIC<br>2082-0801                        | = |
| FAILURE MODE-OUT OF TOLERA<br>00 FSIG WAS 11.5 CHHS AND A<br>BOVE CONTACT RANGE, THIS MA<br>EF, FPR NR F-5050 S/N 1001. | FAILURE MODE-OUT OF TOLERANCE- DURING POST VIBRATION PROOF CYCLE THE CONTACT BESISTANCE BEFORE PRESSURIZATION TO 48 DO FILC MAS 11.5 OHNS AND AFTER WAS 0.6 OHNS AND VARIED WAS AND VARIED BY THE NESSURE WAS ABOVE CONTACT RANGE. THIS WAS CAUSED BY THE MICROSHITCH CONTACT RANGE. THIS WAS CAUSED BY THE MICROSHITCH CONTACT RANGE. RESISTANCE ALLOHED IS 4 OHNS. REF. FPR HR F-5050 5/N 1001. | F CYCLE THE CONTACT I<br>THEEN THE ABONE REBLI<br>TACTO, THE NAKINING OF | NEBIBTANCE<br>STANCE VALV<br>MITACI REBI | BEFORE PR        | TESSUE<br>TYPE TO<br>TESTED | 12A11CH TO 45<br>RESSURE MS A<br>18 4 CHMS. R |   |
| CORRECTIVE ACTION-RE                                                                                                    | ON-RECOMMEND THE VENDOR INVESTIGATE NEW HICRO SMITCH.                                                                                                                                                                                                                                                                                                                                             | CRO BAITCH.                                                              |                                          |                  |                             |                                               |   |
| MTDRAULIC-A/B<br>BOOSTER                                                                                                | 69A3166.1<br>HTDRAULIC PRESSURE BMITCH                                                                                                                                                                                                                                                                                                                                                            | UTP-QUAL/PPT<br>E7-06543-1                                               | ***************************************  | 3/ <b>3</b>      | 20                          | ACR VOHIC                                     |   |
|                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                          |                                          |                  |                             |                                               |   |

Park and San San

سمعہ د م<del>محقہ</del> اد علام د FAILURE MODE-OUT OF TOLERANCE- DURING VIRRATION IN ALL THREE AND OF VIBRATION THE BNITCH OPENING WAS CONSISTANTLY BEGO PLUS, MINUS 10PSIG. THE REQUIRED IS RESORDED. MAK, THE VOLTAGE ACROSS PINS A AND B VARIED AND INDICATED A CHANGE IN RESISTANCE ACROSS THE CONTACTS. IN POST VIBRATION PROOF CYCLE, THE CONTACT RESISTANCE WAS FOUND TO BE 6.80HHS A T 2000 PSIG, AND 16.50 OHHS AT 4500PSIG. SPECIFICATION REQUIRES ACHNS MAK, THIS WAS CAUSED BY OIL ON MICROSMITCH CONTACTS. REF. FOR ME 7-2050 S/M 1001.

GENERAL DYNAHICS CONVAIR DIVISION

18 10K 191

DIFFICULTIES REVIEW-HYDRAULIC SYSTEM-AIRBORNE

| STETEN<br>SUB-STSTEN                                       |                                  | TEST.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | TEST/HEPORT NUMBER<br>FAILED HOMPONENT NAME                                                                                                                                                                                                                                                                           | DIF DATA BOUNCE<br>PART NUMBER                             | WENTELE<br>DATE DIP    | 114E 01F                                        |              | PRI VENDOR NAME<br>OTH VENDOR PART NO     |     |
|------------------------------------------------------------|----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|------------------------|-------------------------------------------------|--------------|-------------------------------------------|-----|
| CORRECTIVE ACTION-                                         | RECOME                           | NO THE VENDOR                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | ON-RECOMMEND THE VENDOR INVESTIGATE NEW HICKORNITCH.                                                                                                                                                                                                                                                                  | DAMITCH.                                                   |                        |                                                 | ]            |                                           | :   |
| HTDRAULIC-A/B<br>BOOSTER                                   |                                  | 6943166.1<br>HYDRAULIC PRE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | SSASISS.1<br>Mydraulc Preseur Buitch                                                                                                                                                                                                                                                                                  | UTP-QUAL/PPT<br>27-00543-1                                 | <b>40313</b>           | y <b>3</b>                                      | ÷ 5          | TEB BERVONIC<br>NO 2092-0801              | į   |
| 0E-0UT 0<br>TABILIZA<br>SISTANCE                           | OF TOLES<br>TTION NE<br>E NETHIN | IANCE. THE UNI<br>THORK TECHNIC<br>THE MICROBAI                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | FAILURE MOCE-OUT OF TOLERANCE. THE UNI' BID NOT MEET MIL-T-20000 COMDUCTED AND RABIATED INTERFERENCE REGUIREMENTS U<br>BING LINE STABILIZATION NETWORK TECHNIQUE, ALBO THE UNIT BUITCH ACTUATION DECAME INTERNITTENT AND WAS CAUSED BY MIGH<br>CONTACT RESISTANCE WITHIN THE MICROBMITCH REF. FPR NR F-3040 S/N 1006. | 18600 COMDUCTED AND<br>TCH ACTUATION BECAND<br>B 8/N 1006. | RADIATED<br>[ INTERNIT | INTEAFER                                        | ENCE<br>ENCE | REQUIREMENTS U<br>CAUSED SY MICH          |     |
| E ACTION-                                                  | -VENDOR                          | CORRECTIVE ACTION-VENDOR HAS SELECTED A NEW .<br>4 MAY 1964 ARE AVAILABLE REF. FR 654-2-EGT A.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | CORRECTIVE ACTION-VENDOR HAS SELECTED A NEW MICROSWITCH THAT IS A SEALED UNIT. THREE UNITS POR A PPT TEST RERUN ON<br>May 1964 are available ref. Fr 654-2-207 A.                                                                                                                                                     | T 18 A BEALED WAIT.                                        | THREE UNI              | 7 804 A                                         | · · • •      | TEST RERUN ON                             |     |
| HYDRAULIC-A/B<br>BOOSTER                                   |                                  | LV-90-10-E43-F<br>REDUCER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>b</b>                                                                                                                                                                                                                                                                                                              | FAR<br>NOSE                                                | 3510<br>440311         | Ē                                               | ភ្នំខ        | YES DEUTSCH COMPAN<br>NO V<br>MSZ4388     | *** |
| CCRECTIVE ACTION-4D/C FILL<br>ASSEMBLY, DEUTSCH COMPANY 15 | -WO/C FI                         | ILL AND BLEED<br>IS NOT AN APP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | CCRECTIVE ACTION-40/C FILL AND BLEED AND LEAK CHECKS WILL ISOLATE OTHER POSSIBLE DAMMEDD FITTINGS DUE TO ABMORMAL<br>Ssemelt. Deutsch Company is not an Approved Source for Tubing Fittings.                                                                                                                          | ISOLATE OTMER POSSIE<br>NG PITTINGS.                       | PLE DAME               | 8 F111W                                         | ಕ<br>3       | UE TO ABHORNAL                            |     |
| HTDRAULIC-A/B<br>BCOSTER                                   |                                  | COUNTOR BER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | BERYO VALVE                                                                                                                                                                                                                                                                                                           | UTP-PRT<br>E7-06530-7                                      | 640310                 | <b>3/9</b>                                      | ž g          | YES HYDRAULIC RESE<br>ND ARCH<br>104700-1 | į   |
| FAILURE MODE-OUT O<br>D6-3637 AND 2125 CM                  | OF TOLES                         | RANCE-DURING<br>205-3592 CHE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | FAILURE MODE-OUT OF TOLERANCE-DURING INITIAL ACCEPTANCE TEST THE SERVONALVE COIL RESISTANCE HAS 2141 CHMS FOR 3/M 2<br>16-3637 AND 2125 CHMS FOR 205-3382 CHMS FOR 8/M 205-3882. SPECIFICATION REQUIRES 2100 MAXIMUM. REF. FPR HR F-4219 ST                                                                           | T THE BENNOVALUE CO.<br>ECIFICATION REQUIRES               | 1. RESIST.             | ANCE MAS HIS HIS HIS HIS HIS HIS HIS HIS HIS HI | 7. 3         | CHMS FOR B/N E                            |     |
| CORRECTIVE ACTION-                                         | -CARR F.<br>IBYANCEL             | OH-CARR F-4210-SC-1 STATES<br>IESISTANCES AT TEMPERATURES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | CORRECTIVE ACTION-CARR F-4219-5C-1 STATES THAT COIL RESISTANCE UP TO 2280 GROW IS ACCEPTED. IN GCP 7327 ACCEPTABLE<br>Onditions and resistances at Tenferatures will be Established.                                                                                                                                  | ЖЕ UP TO 2280 ОЧН<br>ED.                                   | 18 ACCEP               | 766. JN C                                       | ,            | SET ACCEPTABLE                            |     |
| HYDRAULIC-A/B<br>BOOSTER                                   |                                  | 0043188.1<br>HYDRAULIC PR                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 69A3166.1<br>Hydraulic Pressure anitch                                                                                                                                                                                                                                                                                | UTP-6UAL/PPT<br>E7-06543-1                                 | 016070                 | 3/ <b>09</b>                                    | ž Q          | TES BERVONIC<br>NO EUSE-DOGS              | *** |
| FAILURE MODE-OUT G                                         | OF TOLES                         | TANKE- DURING                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | IT OF TOLERANCE- BURING A RESPONSE TEST THE UNIT NO BLOW IN RESPONSE.                                                                                                                                                                                                                                                 | NIT WE BLOW IN NES                                         | POINT.                 |                                                 |              |                                           |     |
| CORRECTIVE ACTION-<br>N ON 4 NAY 1964, AR                  | -VENDOR                          | HAB BELECTED<br>LABLE: REF. PL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | COMMECTIVE ACTION-VENDOR HAS BELECTED A MEW MICROSMITCH THAT IS A BEALED UNIT. THREE NEW UNITS, FOR A PPT TEST REAU<br>1 om 4 may 1864, are available. Ref. Fr 684-8-207 B.                                                                                                                                           | T 16 A BEALED UNIT.                                        | THREE ME               | u unite.                                        | 5            | A PPT TEST REAU                           |     |
|                                                            |                                  | Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Contro |                                                                                                                                                                                                                                                                                                                       |                                                            |                        |                                                 | l            |                                           | t   |

an amount to the extensional of the first amount a managed field and the control of

PASE BESS

GENERAL DYNAMICS CONVAIR DIVISION

9961 HOF 61

|                                                                                    | DIFFICULTIES REVIEW-HYDRAULIC SYSTEM-AIMSORNE                                                                                                                                                                                                                                                                                                                                     | TAULIC STOTEM-AIRBON                                                | ¥                                     |                                |                                                            |                                        |
|------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|---------------------------------------|--------------------------------|------------------------------------------------------------|----------------------------------------|
| 8787EN<br>8U8-8787EN                                                               | TEST/REPORT HAMBER<br>FAILED COMPOMENT NAME                                                                                                                                                                                                                                                                                                                                       | DIF DATA BOUNCE<br>PART IN: GER                                     | VENICLE<br>DATE DIF                   | 817E 1                         | PRI VENDOR NAME<br>OTH VENDOR PART NO                      | ,                                      |
| HTDRAULIC-A/B<br>BOOSTER                                                           | A-AB-D4-4773-F<br>ACTUATOR/O-RING                                                                                                                                                                                                                                                                                                                                                 | FAR<br>E7-0850-7                                                    | £110<br>640307                        | PACTORY !                      | YES HYDRAMIC RESC<br>NO ARCH<br>104700-1                   | 17100                                  |
| FAILURE MODE-LEAR-EXTER THINTE DURING SYSTEM CO MADE UNUSUAL MOISES DI REPRODUCED. | FAILUME MODE-LEAR-EXTERMAL. THE BOOSTER E YAW BERNOCYLINDER ASSEMBLY WAS OBSERVED LEARING IN EXCESS OF ONE DROP PER<br>Himute During statem checkout at 2000 Pals. Learage was archad the Piston Banft sealing gland mut. The actuator als<br>o made umusual moisés during dynamic testing. Learage was bue to a harb o-ring beal. The reported moise coald mot be<br>reproduced. | T ASSEMBLY WAS OBSEMBLY DANS THE PISTON BANK<br>LE TO A HAND OPRING | WED LEAKING<br>T AEALING<br>DEAL. THE | F IN EXCENSION TO A SEPONTED H | S OF OME DROP PER<br>THE ACTUATOR ALS<br>DISE COULD NOT BE |                                        |
| CORRECTIVE ACTION-NOME<br>INS ITUTED RIGID STANDAR                                 | ON-NOME FOR THIS PARTICULAR UNIT. NOT A FAILURE. LEARANE METHEM 60/C SPECIFICATION 27-04502. WENDOR<br>Standards for accepting bealing O-Rings.                                                                                                                                                                                                                                   | LIME. LEAKAGE WETHER                                                | 80/C 8PEC                             | F1CA1108                       | E7-04E0Z. VENDOR                                           |                                        |
| HTDRAULIC-A/B<br>BOOSTER                                                           | LV-98-10-241-F<br>HTDRAULIC PURP                                                                                                                                                                                                                                                                                                                                                  | FAR<br>27-06566-1                                                   | 2630<br>640303                        | COMPLEX                        | HO VICKERS<br>YES AA-GOGDS-4R-EA                           | 01500                                  |
| FAILURE MODE-FAILED TO                                                             | FAILURE MODE-FAILED TO OPERATE AT PRESCRIBED TINE. PURP NOULD MOT MOTOR WITLE 2200 PSIG HYDRAULIC PRESSURE UAS APPL<br>ED.                                                                                                                                                                                                                                                        | ALD NOT NOTON WITH.                                                 | ##00 Pale                             | TORAGE IC                      | PRESSURE WAS APPL                                          |                                        |
| CORRECTIVE ACTION-NO FI                                                            | ON-NO FAILURE. SITES ADVISED THAT THE PLOY LIMITER VALVE MAY MANE CONTRIBUTED TO THE REPORTED FAILUR                                                                                                                                                                                                                                                                              | LINITER VALVE MAY MA                                                | W CONTRIB                             | 4 01 0310                      | E REPORTED FAILUR                                          |                                        |
| MYDRAULIC-A/B<br>BOOSTER                                                           | 69-1913<br>VALVE-BAPETV PRAIDF                                                                                                                                                                                                                                                                                                                                                    | UTP-PRT<br>R7-00361-1                                               | 508070                                | CONTAIN                        | YES BENGON<br>ND 1050                                      | ************************************** |
| FAILURE MODE-OUT OF TOI<br>IM). TEST SPECIMEN MANBE                                | FAILURE MODE-OUT OF TOLERANCE. DURING PRT LEARANG RATE AT 3150 PSIS WAS RE CEMIN. ISPECIFICATION MAXIMUN IS 3 CE/N<br>IM). TEST SPECIMEN MURBER 310-0429, REFER TO PRR 148.                                                                                                                                                                                                       | 1130 PB19 WAS BR CC/                                                | M10. (8FC)                            | FICATION                       | MAXINUM 18 8 CC/N                                          |                                        |
| CORRECTIVE ACTION- BLY S                                                           | ON-SLY DESIGN TO CHANGE SPECIFICATION TO ALLOW 30 CC/NIN LEARABE AT 3130 PSIS.                                                                                                                                                                                                                                                                                                    | CH 30 CC/HIN LEAKAN                                                 | E A7 3130                             | .916.                          |                                                            |                                        |
| HYDRAULIC-A/B<br>BOOSTER                                                           | SMASSAGE.E<br>MTDRALLIC PPESSURE SMITCH                                                                                                                                                                                                                                                                                                                                           | UTP-QUAL/PPT<br>R7-09848-8                                          | <b>40304</b>                          | y 9                            | YES BERYCHIC<br>NO E088-0608                               | ***                                    |
| FAILURE MODE-OUT OF TO                                                             | IT OF TOLERANCE. DURING A RESPONSE TEST BOTH UNITS NERE BLOW IN RESPONSE, REF. FPR NR F-3047.                                                                                                                                                                                                                                                                                     | UNITE NENE BLOW IN                                                  | RESPONSE.                             | REF. FPR 1                     | R F-3047.                                                  |                                        |
| CORRECTIVE ACTION- SPECI                                                           | ON-SPECIFICATION 27-D8848-1 WILL DE DEVISED TO INCREASE THE 10 MILLISECONDS TO 50.                                                                                                                                                                                                                                                                                                | TO INCREASE THE 10                                                  | HILLIBECOM                            | 08 TO 50.                      |                                                            |                                        |
|                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                   |                                                                     |                                       |                                |                                                            |                                        |

GENERAL DYNAMICS CONVAIR DIVIBION

19 JUN 1966

DIFFICULTIES REVIEW-NYDRAULIC SYSTEM-AIRBORNE

١

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 43300                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| WENICLE BITE PRI VENDOR MANE.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | YES HYDRAULIC RESE<br>NO ARCH<br>104709-1 | MR AT MINTENANCE SHO UND AT 40 PDIG. THE L MCOMMERED ALD REDUCE                                                                                                                                                                                                                                                                                                                                                                                        | YES HYDRAULIC RESE SPESSES NO ARCH SO4700-1 LLC OIL ARCHOD THE A OF IN 24 HOURS. CAUSE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 11 P. 17 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. 11 P. | Š                                         | # 24 MG                                                                                                                                                                                                                                                                                                                                                                                                                                                | WTR<br>D HYDRA<br>18 1 DR<br>BRAUL.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 20 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 2 3 3 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| WEHICLE<br>DATE DIF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 640303                                    | NON THE HI<br>SO DROPS I                                                                                                                                                                                                                                                                                                                                                                                                                               | 3500<br>840303<br>96LY LEAKE<br>NA LIMITS<br>DURING OVE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | USING A ED<br>CTION. 350<br>64030E                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | PROVED BY DESIGN. SPECIFICATION OF MINUS D.03.  GADEES GO/C YI  SEALING OF THE GAGE WAS EVIDOUNIT WAS ONE-THIRD PULL OF WA                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| DIF DATA SOUNCE<br>PART NUMBER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | FAR<br>87-08550-7                         | MA LEAKING 9 TO<br>AND AGED O-RINGS.<br>OF THE DINEMBIONA                                                                                                                                                                                                                                                                                                                                                                                              | E7-08550-7 THE ACTUATOR ASSECONDITIONS. MAXIM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | TER, AND CROSS SE<br>UTP-QUAL/FPT<br>ET-08543-1<br>03 INCH BETHEEN C<br>13001, 100E.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | UTP-PET ST-08562-3 TIMPOPER SEALING INDIED WILL NOT EPT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| TEST/REPORT NUMBER<br>FAILED COMPONENT NAME                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | LY-9D-04-4781F<br>ACTUATOR/O-RIMS BEAL    | FALLURE MODE-LEAR-EXTERNAL. THE BOOSTER SERVO CYLINDER ABBENDLY WAS REMOVED PROM THE MISSILE IN THE MAINTENANCE SHO<br>P WHEN IT WAS NOTED DURING A SURVEILLANCE INSPECTION THAT IT WAS LEARING 3 TO 10 DROPS IN 24 HOURS AT 40 PSIG. THE L<br>EARACE WAS DUE TO A SLIGHT DIMENSIONAL DISCREPANCY, AND MORN AND AGED O-RINGS.<br>CORRECTIVE ACTION-VOAR TO HYDRAULIC RESEARCH INFORMING THEN OF THE DIMENSIONAL DISCREPANCIES ENCOUNTERED ALD RESULES. | TOBALIC-A/B  LV-80-D4-4781-F  ACTUATOR BOOSTER-O-RING  R7-D8550-7  840303  NO ARCH  104700-1  104700-1  FAILURE HODE-LEAK EXTERNAL-DURING HYDRAULIC SYSTEM CHECKOUT THE ACTUATOR ASSEMBLY LEAKED HYDRAULIC OIL ARCHOUNG THE A CTUATOR SHAFT AT A RATE OF 10 BOOP 1N 30 MINUTES UNDER STATIC CONDITIONS. MAXIMUM LIMITS IS 1 DROP IN 24 HOURS. CAUSE OF LEARACE WAS DUE TO SURFACE DEFECTS IN THE O-RINGS INSTALLED BY THE VENDOR DURING ONEMBALL. | CORECTIVE ACTION-HYDRAULIC RESEARCH MILL INSPECT O-RIMGS ON A 100PCT BABIS. USING A ED POMER SCOPE FOR VOIDS, ETC.  EACH O-RIMG MILL. BE GAGED FOR INSIDE DIANETER, OUTSIDE DIANETER, AND CROSS SECTION, 350 D RENORMED FROM 137D.  TOFAULIC-A/B 69A3168-1  MYDRAULIC-A/B 69A3168-1  MYDRAULIC-A/B 69A3168-1  RT-08543-1  RT-0 | CORRECTIVE ACTION-THE UNIT COMPLIED WITH THE VENDOR PRINT WHICH WAS APPROVED BY DESIGN. SPECIFICATION WILL BE PROCE  SECONDARY A LATER DATE TO READ 1.00 PLUS OR MINUS .30 INSTEAD OF 1.0 PLUS OR MINUS D.03.  TOP-PET 640EES 60/C YES AMERICAN STAND  COSTER  640EES 60/C YES AMERICAN STAND  640E-PRESSURE  87-0856E-3  640EES 60/C YES AMERICAN STAND  640E-TIES THE CASE TO FAILURE PRODUCTION EVALUATION TEST IMPROPER SEALING OF THE CASE THIS EVIDENCED WHEN AT SO  640E-TIES THE CASE TO FAILURE REVIEW REPORT 164. LEAR AS NOTED WILL NOT EFFECT FUNCTION OF UNIT. |
| 818-8751EH<br>818-8751EH                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | HTDRAULIC-A/B<br>BOOSTER                  | FAILURE MODE-LEAK-EXTERNAL, TI<br>P WHEN IT WAS MOTED DURING A SI<br>EARAGE WAS DUE TO A SLIGHT DIM<br>CORRECTIVE ACTION-YCAR TO HYDI<br>TING A GUALITY CONTROL REVIEW.                                                                                                                                                                                                                                                                                | MYDRAULIC-A/B<br>BOOSTER<br>FAILURE HODE-LEAK EXTERNA<br>CTUATOR SHAFT AT A RATE OF<br>OF LEARAGE WAS DUE TO SUR                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | CORECTIVE ACTION-HYDRAUL EACH O-RIMG MILL BE GAGED HYDRAULIC-A/B BOOSTER FAILURE MODE-OUT OF TOLER BBURE COMMECTIONS MAS 1.23                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | CORRECTIVE ACTION-THE UNI SSED AT A LATER DATE TO RE WYDRAULIC-A/B BOOSTER FAILURE WODE-LEAR EXTERNA DEGRES F UNDER A DIFFEREN ECIAL PET 1EST. REFER TO F                                                                                                                                                                                                                                                                                                                                                                                                                   |

CORRECTIVE ACTION-BUALITY CONTROL MEASURES TIGHTENED TO INCLUDE LOT CONTROL. PRODUCTION EVALUATION TESTS INITIATED ON ALL INCOMING UNITS.

GENERAL BYNAMICS CONVAIR BIVISION

13 JUN 1886

|                                                                                      | DIFFICULTIES REVIEW-HYDRAULIC SYSTEM-AIRSCRIE                                                                                                                                                                                                                                                          | AULIC BYBTEN-AIRBOR                              | ¥                   |                       |            |                                                               |             |
|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|---------------------|-----------------------|------------|---------------------------------------------------------------|-------------|
| <br>3787EH<br>8UB-8787EH                                                             | TESTREPORT MAMBER<br>PAILED COMPONENT NAME                                                                                                                                                                                                                                                             | DIF DATA SOURCE<br>PART HUNGER                   | WENTELE<br>DATE DIF | 111E                  | ž č        | WENTELE BITE PRI VENDOR MANE.                                 | <del></del> |
| <br>#7024 UL 1 C - A / B<br>#0008 TER                                                | LV-98-10-240-P<br>BOOSTER HYDRAULIC FLUID TANK                                                                                                                                                                                                                                                         | FAR<br>27-00551-3                                | 1100                | PACTORY               | 2 8        | BENBOW MF6.                                                   |             |
| <br>FAILTHE HODE-LEAR EXTER UNION.                                                   | FAILTHE HODE-LEAR EXTEFT. L. LEARAGE MAS COSCINUED PROM THE TAME BOOV HYDRAULIC END INTERFACE, POSSIBLY DUE TO A BAD<br>Mich.                                                                                                                                                                          | ANK BOOT HTDRAULIC                               | 20 INTE             | 7ACE , POB            | 1964       | DUE TO A BAD                                                  | -           |
| <br>CORRECTIVE ACTION-FAILUR<br>REMOVAL OF MARDMARE.                                 | CORRECTIVE ACTION-FAILUME NOT CONFINNED. 40/C REINDTRUCTED PERBONNEL TO CAMEFULLY MESCANCH HYDRAULIC LEARANE BEFORE<br>Removal of Harduare.                                                                                                                                                            | PERSONGL TO CAREFU                               | LLY RESED           | КН НУВВА              | NE IC      | LEAKAGE BEFORE                                                |             |
| <br>HYDRAULIC-A/B<br>BOOSTER                                                         | ETA-3516<br>VALVE-BAPETY RELIAT                                                                                                                                                                                                                                                                        | UTP-PET<br>R7-06561-1                            | <b>64089</b>        | CONVAIR               | <b>1</b> 8 | VES BENGOM<br>NO 9050                                         |             |
| <br>FAILURE MODE-OUT OF TOLE<br>D 7.0 CC/MIN. (SPECIFICAT<br>7. LOT MANBER 5.        | FAILURE MOE-OUT OF TOLERANCE. DURING PET HIGH TEIMERATURE (PLUG 229 DEGNEES P) TEST, LEAKAGE RATE HAS 7-0, 9-3, AM<br>D 7-0 cc/hin. (Specification maximum is 3 cc/mim). Test specimen murres 312-0040 refer to supplement a fre muree os<br>7. Lot mager 5.                                           | (PLUS EES DECHEES F                              | 0 ACTES . L.        | EMAGE EA<br>D BUPPLEM | 12<br>1    | LEARAGE RATE WAS 7.0, 9.3, AN<br>TO SUPPLEMENT A PAR MARGE OS |             |
| <br>CORRECTIVE ACTION-BPECIF                                                         | CORRECTIVE ACTION-BRECIFICATION CHANGED TO ALLOW HORE LEARAGE.                                                                                                                                                                                                                                         | <b>4.</b>                                        |                     |                       |            |                                                               |             |
| HYDRAULIC-A/B<br>BOOSTER                                                             | LV-AS-10-838-F<br>PODSTER HYDRAULIC TANK                                                                                                                                                                                                                                                               | FAR<br>27-06581-3                                | 11909               | PACTORY               | 20         | 80.00 MPs<br>80.00                                            | •           |
| <br>PAILURE MODE-LEAK EXTERN                                                         | PAILURE MODE-LEAR EXTERNAL-LEARAGE OBSCRUED AT PAGUMATIC ENDCAP.                                                                                                                                                                                                                                       | DCAP.                                            |                     |                       |            |                                                               |             |
| CORRECTIVE ACTION-VENDOR                                                             | ON-VENDOR ASSEMBLY PERSONNEL CAUTIONED TO ASSEMBLE UNITS CONNECTLY METH INSPECTION TO VERIFY.                                                                                                                                                                                                          | SEMBLE UNITS COMBE                               | 7.7 LE 72           | INSPECTIO             | 2          | VERIFY.                                                       |             |
| <br>HYDRAULIC-A/B<br>BOOSTEA                                                         | LV-99-04-4709<br>ACTUATOR-BOOSTER, SERWUNALUE                                                                                                                                                                                                                                                          | FAR<br>87-08350-7                                | 3900<br>4.0219      | FACTORY               | 20         | VES HYDRAULIC RESE<br>NO ARCH<br>104700-1                     | •           |
| <br>FAILURE MODE-SHORT GLEC<br>E.1 VOLTS. THEMAXIMUM AL<br>IZED THE SHORT MAS CAUSED | FAILURE MODE-SHORT GELECTRICAL)-BOOSTER TWO PITCH ACTURIOR MAD MICH PERDBACK WOLTAGE. TWE MEASURED VOLTAGE WAS<br>8-1 Volts. Themaximum allomble 16 230 millivolts. The Pailumenas caused by a smorted toneue motor coll.17 was surm<br>12ED THE SHORT WAS CAUSED BY APPLICATION OF EXCESSIVE WOLTAGE. | HAD HISH MULL FEEDB<br>LURENAS CAUBED BY A<br>G. | ACR VOLTA           | UE. THE H             | 3 8<br>3 8 | ED VOLTAGE UND                                                |             |
| <br>CORRECTIVE ACTION-NO COR                                                         | CN-NO CORRECTIVE ACTION TAKEN.                                                                                                                                                                                                                                                                         |                                                  |                     |                       | }          |                                                               |             |

DIFFICULTIES REVIEW-HYBRAULIC SYSTEM-AIRBORNE

| ERAL DYNAMICS | CONVAIR DIVIBION |             |  |
|---------------|------------------|-------------|--|
| 23            | 8                |             |  |
|               |                  |             |  |
|               |                  | 100% 157 51 |  |
|               |                  | =           |  |

| 37.2.TCM<br>3.66-57.5.TCM                                                                                                                                                                                   | TEST/REPORT NUMBER PAILED COMPONENT MANE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | DIF DATA BOUNCE<br>PART NUMBER                                                         | WEMICLE BITE PRI VENDOR MANE<br>BATE BIF TIME BIF OTH VENDOR PART NO | 11 PE 11 PE                       | PRI VEN                                 | VENDOR NAME                                | 9            |   |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|----------------------------------------------------------------------|-----------------------------------|-----------------------------------------|--------------------------------------------|--------------|---|
| HYDRAULIC-A/B<br>BODSTER                                                                                                                                                                                    | LV-AS-10-256-F FAR<br>BOOSTER HYDRAULIC BAPETY RELIEF VA ET-06561-1<br>LVE.                                                                                                                                                                                                                                                                                                                                                                                                                                              | FAR<br>27-00961-1                                                                      | 1940                                                                 | PACTORY                           | VES VINSON<br>NO A-BORS                 | VINSON<br>A-BORBE                          | <u>:</u><br> |   |
| FAILUME MODE-FAIL TO OPE                                                                                                                                                                                    | FAILUME HODE-FAIL TO OPERATE AT PREBCRIBED TIME, VALVE WOULD NOT REBEAT WHILE PRESBURE UNS MAINTAINED ABOVE 1550 PS<br>:6.                                                                                                                                                                                                                                                                                                                                                                                               | D NOT RESEAT WHILE                                                                     | HESSER &                                                             | 18 MAINTA                         | INED AB                                 | OVE 1950                                   | 2            |   |
| CORRECTIVE ACTION-FAILUR<br>PREVENT UMMECESSARY REJE                                                                                                                                                        | CORRECTIVE ACTION-FAILURE NOT CONFIRMED. 40/C RECOMENDED APPLICABLE CHECKOUT PROCEDURES DE STRIMENTLY FOLLOMED TO<br>Prevent unmecessary rejection of 6000 marbimare.                                                                                                                                                                                                                                                                                                                                                    | PPLICABLE CHECKOUT                                                                     | MOCEDUMES                                                            | DE STRIN                          | GENTLY                                  | FOLLOWED                                   | 2            |   |
| HTDRAULIC-A/B<br>BOOSTER                                                                                                                                                                                    | LV-19-04-4667-F<br>ACTUATOR O-RING                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | FAR<br>27-00350-7                                                                      | 1940                                                                 | FACTORY                           | VES HYDRI<br>NO ARCH<br>10470           | VES HYDRAULIC RESE OBSESS NO ARCH SO4700-1 | ¥            | : |
| FAILURE MODE-CONTANINATION. THE BOODT<br>AFT O-RING SEAL AND PROM THE BLEED POR<br>ANALYSIS DETERNINED THAT THERE NAS NO<br>ANIC SEAL DID NOT EXCEED SPEC. THE LEA<br>PARTICLES UPSETTING SEALING SURFACES. | FAILURE MODE-CONTANINATION. THE BOOGTER SERVOCTLINDER ASSEDBLY REPORTEDLY LEAKED HYDRAULIC FLUID PAST THE PISTON AN AFT O-RING SEAL AND FROM THE BLEED FORT AT THE PISTON END. LEAKAGE OCCURRED UNDER DYMANIC CONDITIONS WITH SOOD PSIG. AMALYSIS DETERNINED THAT THERE WAS NO LEAKAGE FROW THE BOLLED PORT AND THE LEAKAGE PAST THE ROD-END PISTON-SWAFT DYN ANIC SEAL DID NOT EXCEED SPEC. THE LEAKAGE WAS ATTRIBUTED TO O-RING SURFACE CRACKING, PELT FIBERS, AND CONTANINATING PARTICLES UPSETTING SEALING SURFACES. | BLY REPORTEDLY LEAK<br>EAKAGE OCCURED UND<br>D PORT AND THE LEAK<br>O-RING BURFACE CRA | ER DYMMIC<br>NEE PAST IN<br>CKING, PELS                              | CONDITION OF MONEY                | PAST TH<br>NS WITH<br>D P1810<br>AND CO | E PISTON<br>  3000 PSI<br>                 | 1381         |   |
| CORRECTIVE ACTION-VENDOR INVESTIGATE  4 O-RIMG SUPPLIERS OF THIS AMALYSIS.                                                                                                                                  | CORRECTIVE ACTION-VENDOR INVESTIGATED THE PROBLEM, REVIEWED HIS ASSEMBLY AND INSPECTION PROCEDURES, AND INFORMED HIS COPPLIERS OF THIS ANALYSIS.                                                                                                                                                                                                                                                                                                                                                                         | HIS ASSECT AND II                                                                      | **************************************                               | MOCEDURE                          | . A6                                    | INFORMED                                   | =            |   |
| HYDRAILIC-A/B<br>BOOSTER                                                                                                                                                                                    | LV-A9-04-4666-F<br>ACTUATOR O-RING                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | FAR<br>\$7-06350-7                                                                     | 1940                                                                 | FACTORY                           | NO ARCH<br>10476                        | YES HYDRAULIC RESE<br>NO ARCH<br>104700-1  |              | 1 |
| FAILURE MODE-CONTAMINATI AFT SEAL O-RING UNDER DYN BURFACE CRACKING, FRAYED                                                                                                                                 | FAILURE MODE-CONTAMIMATION. THE BOOGTER BERNOCYLINDER ASSEMBLY REPORTEDLY LEAKED HYDRAULIC FLUID PAST THE PISTON BH<br>AFT SEAL O-RING UNDER DYNAMIC CONDITIONS WITH SOOD PSIG. AMALYSIS CONFIRMED THE LEARACE AND ATTRIBUTED IT TO O-RING<br>BURFACE CRACKING, FRAYED FELT FIBERS, AND OTHER CONTAMINATING PARTICLES DISTURSING THE O-RING BEALING BUNFACE.                                                                                                                                                             | BLY REPORTEDLY LEAK!<br>LYSIS CONFIRMED THE<br>6 PARTICLES DISTURS:                    | ED HYDRAUL!                                                          | IC FLUID<br>D ATTRIB<br>NIMB BEAL | 74 72 TU<br>17                          | E P1810N<br>10 O-R1N<br>FACE.              | ã.           |   |
| CORRECTIVE ACTION-VENDOR INVESTIGATES OF THIS ANALYSIS.                                                                                                                                                     | CORRECTIVE ACTION-VENDOR INVESTIGATED THE PROBLEM, REVIENED HIS ASSEMBLY AND INSPECTION PROCEDURES, AND INFORMED HI<br>O-SING SUPPLICAS OF THIS ANALYSIS.                                                                                                                                                                                                                                                                                                                                                                | HIB ASSEMBLY AND II                                                                    | 49FC71GN (                                                           | PROCEDURE                         | . ¥                                     | INTORNED                                   |              |   |
| HYDRAULIC-A/B<br>BODSTER                                                                                                                                                                                    | LY-A9-04-4603-F<br>ACTUATOR O-RING                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | FAR<br>£7-08350-7                                                                      | 1840                                                                 | PACTORY                           | VES HYDRIA<br>NO ARCH<br>1047           | VES HYDRAULIC RESE<br>NO ARCH<br>104700-1  | <u>.</u>     |   |
| FAILURE MODE-CONTANIMATI HAFT SEAL O-RING UNDER DY 4PEC AND MAS CAUSED BT O- SCALING SURFACES.                                                                                                              | FAILUME MODE-CONTAMINATION. THE BOODTER BEVERCETLINDER ABBENDLY REPORTEDLY LEAKED MYDRAULIC FLUID PART THE PISTON S<br>Haft seal o-ring under dynamic commections with 3000 PBIG. ANALYBIS DETERMINED THAT THE REPORTED LEARAGE WAS WITHIN TWIS<br>WEC AND WAS CAUSED BY O-RING BURFACE CRACKING, FRATED FELT FIBERS, AND OTHER CONTAMINATING PARTICLES DISTURBING THE<br>SCALIMG BURFACES.                                                                                                                              | MALY REPORTEDLY LEA<br>MALYSIS DETERMINED<br>FIBERS, AND OTHER CO                      | KED MYDRAU<br>FRAT THE RE                                            | LIC PLUID<br>FPORTED L            | PA87 7<br>EAKAGE<br>LE8 BI8             | HE PISTON<br>MAS WITHI<br>TURBING T        | *            |   |

\*\*\*\*\*\*\*\*\*\*\*

| 61 VI 81 OF |
|-------------|
| CONTAIN     |
|             |

| _ |                                                                                     |                                                                                                                                                                                                                                                                                              |                                                                                                                                          |                                                                                  |                      |            |                                                     | 1            |                                         |
|---|-------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|----------------------|------------|-----------------------------------------------------|--------------|-----------------------------------------|
|   | BVB-BVBTER                                                                          | TEST/REPORT HUMBER FAILED COMPONENT NAME                                                                                                                                                                                                                                                     | DIF DATA BOUNCE<br>PART NUMBER                                                                                                           | DATE BIF                                                                         | 11ME 01F             | T o        | VENDOR PART NO                                      | 7 1 10       |                                         |
|   | CORRECTIVE ACTION-VENDOR INVESTIBAT<br>B O-RIMS SUPPLIERS OF THIS ANALYSIB-         | TICH-VENDOM INVESTIGATED THE PROBLEM, REVIEWED HIS ASSEMBLY AND INSPECTION PROCEDUMES, AND INFORMED HI                                                                                                                                                                                       | D HIS ASSEMBLY AND I                                                                                                                     | MEPECTION                                                                        | PROCEBUR             | . P.       | ND INFOR                                            | MED HI       | :                                       |
|   | HYDRAUL IC-A/B<br>BOOSTER                                                           | LV-89-04-4447-F<br>ACTUATOR ASSEMBLY-BOOGTER                                                                                                                                                                                                                                                 | FAR<br>87-08550-9                                                                                                                        | 11207                                                                            | FACTORY              | 2 Q        | HYDRAULIC<br>ARCH<br>104700-8                       | C RESE       | •                                       |
|   | FAILURE MODE-OUT OF SPEC<br>MAS INCORRECTLY IDENTIFIE<br>8550-8.                    | NUT OF SPECIFICATION-ACTUATOR ASSENDENT WAS REMOVED PROM BOOGITER EMEINE S WHEN HAS DISCOVERED THE UNIT I DENTIFIED ON THE MAREPLATE AS P/N ET-DASSO-7, PAILURE WAS COMPINIED AS THE UNIT WAS ACTUALLY A 27-D                                                                                | ASSENDLY WAS RENOVED PROY BOOSTER ENGINE<br>AS P/N E7-06550-7, FAILURE WAS CONTINUED                                                     | 26114E 1 W-CN<br>184ED A8 THE                                                    | C                    | 19COM      | MAS DISCOVERED THE UNIT<br>UNIT MAS ACTUALLY A 27-0 | 4 87-0       |                                         |
|   | CORRECTIVE ACTION-INSPEC<br>TO SHOP AND INSPECTION PE<br>HIB IDENTIFICATION ERROR.  | CORECTIVE ACTION-INSPECTION SUPERVISION CONCURRED WITH THE PINDINGS OF THIS ANALYSIS. THESE PINDINGS WERE RELATED TO SHOP AND INSPECTION PERSONNEL RESPONSIBLE FOR BOOSTER ACTUATOR ASSEMBLIES INFORMING THEM OF THE CONSESUENCES OF HIS IDENTIFICATION ERROR.                               | E FINDINGS OF THIS A                                                                                                                     | PORKING TH                                                                       | KESE PIN<br>EN OF TH | 20.0       | TINDINGS WERE RELATED<br>THE CONSESUENCES OF        | 0,775<br>7 P |                                         |
|   | HTDRAULIC-A/B<br>BOOSTER                                                            | LV-89-04-4647F<br>ACTUATOR                                                                                                                                                                                                                                                                   | FAR<br>27-08550-9                                                                                                                        | 1510                                                                             | FACTORY              | £ 8        | TES HYDRAULIC RESE<br>NO ARCH<br>104708-9           | C RESE       | *************************************** |
|   | FAILURE MODE - OUT OF SERVO<br>D8550-9. INCORRECT SERVO<br>CENTER AND THEN APPROVED | FAILURE MOCE - OUT OF SPECIFICATION. INCORRECT MANE PLATE IDENTIFICATION OF 87-06550-7 WHEN PART ACTUALLY MAS A 87-<br>06550-9. INCORRECT SERVO CYLINDER WAS INSTALLED ON NISSILE 351D. MANE PLATE MAD BEEN NEPLACED AT THE PRODUCT SUPPORT<br>CENTER AND THEN APPROVED BY THEIR INSPECTION. | NAME PLATE IDENTIFICATION OF ET-DESSO-7 MMEN PART ACTUALLY MAS A ET-CA MISSILE 1810. MANE PLATE MAD BEEN REPLACED AT THE PRODUCT SUPPORT | -08550-7 W                                                                       | ACED AT              | ž Ž        | ALLY 1488<br>RODUCT 8                               | A 27-2       |                                         |
|   | CORRECTIVE ACTION - CONFI<br>ENTATED IN BERNO CTAINDER<br>T USED, NEWD 148-78-28-64 | TICH - COPTANED PAILURE, RAR LY-86-04-8685 RECOMENDED THAT PROBUET BUFFORT CONTEST PERSONNEL BE RECRET<br>VO CYLINDLE DAIN MUSEER IDENTIFICATION AND THAT GUALITY CONTROL BE IMPROVED BO DISCREPANT PARTS ARE NO<br>43-78-26-64 RECEIVED ON DATE 640388 DOCUMENTS THIS DATA.                 | ACCOMENDED THAT PROB<br>AT BUALITY CONTROL S<br>THIS DATA.                                                                               | DUET BUFFORT CENTER PERSONNEL DE RECRE<br>DE INFROVED DO DISCREPANT PARTS ARE NO | 1 CENTER<br>10 0115C | A V        | DOMEL BE<br>T PARTS                                 | ARCON A      |                                         |
|   | HYDRAUL IC-A/B<br>BODG TER                                                          | A-86-10-237-F<br>BOOSTER HYDRAULIC TANK                                                                                                                                                                                                                                                      | FAR<br>87-06581-3                                                                                                                        | 1377                                                                             | £13                  | £ 8        | BENBON 100.                                         | į            | !                                       |
|   | FAILURE MODE-CONTANINATI                                                            | FAILURE HOOF-CONTANINATION. UNIDENTIFIABLE LIBUID FOUND ON INBIDE AND OUTBIDE                                                                                                                                                                                                                | I INSIDE AND CUTBIDE                                                                                                                     | OF PART, IS UNITED.                                                              | . GALTED .           |            |                                                     |              |                                         |
|   | CORRECTIVE ACTION-PAILUM                                                            | TION-FAILURE NOT CONTINUED. 40/C ADVIZED COGNIZANT PERSONNEL THAT PLUID WAS MIL-H-6063 USED AS A                                                                                                                                                                                             | ISZANT PERBONEL THA                                                                                                                      | PLUID VA                                                                         | -HH-                 | 3          | 9ED A8 A                                            | PROTE        | <del></del>                             |
|   | HTDRAULIC-A/B<br>BODSTER                                                            | A-BB-04-474EF<br>BERVOCYLINDER BPRING                                                                                                                                                                                                                                                        | FAR<br>27-06550-0                                                                                                                        | K<br>640£10                                                                      | =                    | <b>2</b> 2 | TES HYDRAULIC RESE<br>NO ARCH<br>104700-5           |              |                                         |
| 1 | FAILURE NOE-OUT OF TOLE T IN THE BERNOVALVE. CAUL BUNF OR JOLT FROM AN UNKE         | TULGRAME, UNIT PEJECTED FOR EXCESSIVE MULL PIEDBACK VOLTAGE. FAILURE ATTRIBUTED TO A MULL 3MIP<br>Caused by a hydraulic imbalance, this resulted from a beny peedback sprims, caused by a severe<br>Unknown bounce.                                                                          | I MEL PEDBACK VOLTA<br>RESULTED FROM A BENT                                                                                              | IGE. FAILUE<br>PEEDBACK                                                          | S ATTRIB<br>SPRIME.  | 2          | 10 A MUL.                                           | 30.0         |                                         |
|   |                                                                                     |                                                                                                                                                                                                                                                                                              |                                                                                                                                          |                                                                                  |                      |            |                                                     |              |                                         |

SENERA. JYNAMICS CONVAIR DIVISION DIFFICULTIES REVIEW-HYDRAULIC SYSTEM-AIRBORNE

. . . . .

11 104 1106

| CORRECTIVE ACTION-NOME, CURRENT VALVES ARE CONFIGURED TO PREVENT THE PECSLEM EXCOUNTERED WITH THIS UNIT.  LV-80-04-4707-P  ACTUATOR  ACTUATOR  ACTUATOR  104700-1  FAILURE MODE-LEAK EXTERNAL. BOOSTER TWO PITCH ACTUATOR WAS REJECTED FOR LEAKAGE AROUND PISTON SHAFT GLAND. THE FAILURE WAS NOT CONFIRMED. |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 7-08350<br>JECTED                                                                                                                                                                                                                                                                                            |
| JECTED                                                                                                                                                                                                                                                                                                       |
|                                                                                                                                                                                                                                                                                                              |
| FAR<br>27-06350-9                                                                                                                                                                                                                                                                                            |
| FAILURE MODE-EXTERNAL LEAK. THIS BOOSTER SERVOCTLINGER REPORTEDLY LEAKED HYDRAULIC PLUID PAST THE PISTON GLAND WHILE AT STATIC PRESSURE. AMALYSIS CONTINNED THE FAILURE AND ATTRIBUTED IT TO A BLIGHTLY MAND AND INCLASTIC O-RIMG. CORRECTIVE ACTION-VENDOR WAS INFORMED OF THIS AMALYSIS.                   |
| UTP-PET<br>E7-08566-1                                                                                                                                                                                                                                                                                        |
| FAILURE MODE-CONTAMINATION, PART 3/N 301-0364 FAILED TO MEET CASE DRAÍN LEARAGE REGUIRDENTS OF 8.6 6PM. DURING LIF<br>E TEST, FAILURE INVESTGATION REVEALED CONTAMINATION.<br>CORRECTIVE ACTION-REF. FR 834-2-142. FAILURE INVESTIGATION SHOWED THAT CONTAMINATED HYDRAULIC OIL CAUSED THE MEAR R            |
| UTP-PET<br>E7-00554-8                                                                                                                                                                                                                                                                                        |

FAILURE MODE-LEAR. AT THE COMPLETION OF THE TEMPERATURE CYCLING AND ENDURANCE WITH THE TEMPERATURE AT 180 DEGREE F.
THE HYDRAULIC DIL LEARAGE ACROSS THE PISTON O RING MEASURED BY DRAINING THROUGH THE GAS PORT NAS 218 NL. ALLOMBLE.
MAX. LEARAGE IS 18.6 CAUSED BY MFG. PROCESS AND BUALITY CONTINGL. REF. FPR IN F-9008SF FRR FR 554-8-206 A/N 311-1110

GENERAL DYNAMICS CONVAIR BIVISION

18 :UN 1988

| A 76.                                                                           | 41 Mb. 65794                                                                                                                                                                                             | C REST 097199                                                  | LEAME<br>NLIC -                                                                                                                                                                                                                                                                                                                  | מ רוא                                                                                                                                                                                                                                                                                                                                       | YES HYDRAULIC RESE #19956<br>ND ARCH<br>104700-9 | CA710<br>ECED.                                                                                                                                                                                                                                                                                      | TURE<br>CINCO                                                                                                                                                                                                                                                                                                                                                                      | VES HYDRAULIC RESE 097107<br>NO ARCH<br>104700-9    | DERO DE                                                                                                                                                                                                                                                                                                                                                                                      |
|---------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| VENDOR NAME                                                                     | . 6227 0                                                                                                                                                                                                 | TES HYDRAULIC RESE<br>MD ARCH<br>104700-8                      | NUT OF TOL<br>ID TO HETA<br>TAL ABBEN                                                                                                                                                                                                                                                                                            | IR DRY AI<br>BIGMED TO                                                                                                                                                                                                                                                                                                                      | HYDRAULIC<br>ARCH<br>104700-8                    | B POLE PI                                                                                                                                                                                                                                                                                           | THAT MOIS<br>IN DRY AIR<br>ERED AN AI                                                                                                                                                                                                                                                                                                                                              | HYDRAULIC<br>ARCH<br>104700-9                       | TIVE PITCI<br>RTICLE BU<br>MOISTURE                                                                                                                                                                                                                                                                                                                                                          |
| ¥ 5                                                                             | 3 2                                                                                                                                                                                                      | <b>2</b> 8                                                     | 20 0<br>1 0 0<br>1 1 1 1 1 1 1 1 1 1 1 1 1 1 1                                                                                                                                                                                                                                                                                   | ž đ                                                                                                                                                                                                                                                                                                                                         | # Q                                              |                                                                                                                                                                                                                                                                                                     | 2 ± 4                                                                                                                                                                                                                                                                                                                                                                              | 22                                                  | 100                                                                                                                                                                                                                                                                                                                                                                                          |
| WENICLE BITE PRI VENDOR NAME<br>DATE BIF TIME BIF OTH VENDOR PART NO            | CONTAINL                                                                                                                                                                                                 | PACTORY                                                        | FOUND TO<br>T 18 ATTRI                                                                                                                                                                                                                                                                                                           | PORATED II<br>LEVB MERE<br>IOH.                                                                                                                                                                                                                                                                                                             | PACTORY                                          | ARDY EX<br>E TORNE                                                                                                                                                                                                                                                                                  | E8 A80 PG<br>CATOR IN<br>ERE 18 CO                                                                                                                                                                                                                                                                                                                                                 | FACTORY                                             | EXTREME<br>ONTAHINAN<br>ED BECAUR                                                                                                                                                                                                                                                                                                                                                            |
| STAREPORT NUMBER DIF DATA BOURCE VEHICLE ID COMPONENT NAME PART NUMBER DATE DIF | CUMP.A TORS                                                                                                                                                                                              | 785                                                            | MALL BIT                                                                                                                                                                                                                                                                                                                         | MAS INCOR!<br>DL.DOME SC!<br>CONTANINATI                                                                                                                                                                                                                                                                                                    | 70£<br>640108                                    | NET MAL CO                                                                                                                                                                                                                                                                                          | LY PROCEDUR<br>18TURE 19D1<br>186. LOCK W                                                                                                                                                                                                                                                                                                                                          | 76£<br>640108                                       | MANGER & CHAIME TO EXTREME POSITIVE PITCH WAS<br>A LARSE METALLIC CONTAMINANT PARTICLE BLOCKIN<br>THAT PROBABLY FORMED BECAUSE OF HOLSTURE DEPO                                                                                                                                                                                                                                              |
| DIF DATA BOUNCE<br>PART NUMBER                                                  | R AND BURVET OF AC                                                                                                                                                                                       | PAR<br>27-06350-9                                              | 11-8, THE ACTUATOR<br>INT OF MARCHE, THE<br>IEB. THIB CONDITION                                                                                                                                                                                                                                                                  | DISTURE INDICATOR H<br>E. TORAUE MOTOR H<br>TIONAL BOURCE OF                                                                                                                                                                                                                                                                                | FAR<br>E7-06550-0                                | H. ACTUATOR ABBON. BETWEEN THE ARM.                                                                                                                                                                                                                                                                 | E HOTOR BUBABBUBH<br>LLED A VIBIBLE HOI<br>MEED FOR LOCK MERI                                                                                                                                                                                                                                                                                                                      | PAR<br>27-06350-9                                   | -                                                                                                                                                                                                                                                                                                                                                                                            |
| TEST/REPORT MUMBER<br>FAILED COMPONENT NAME                                     | COMPECTIVE ACTION-CARR-F-5085-8C-E- TO INITIATE A 8TOP ORDER AND BURNET OF ACCUMULATORS CONTAINING AN 62ET O RIMES. 887988 AN ECP PRESENTATION TO CUSTOMER WAS TO RECOMEND MORE REALISTIC LEARAGE RATES. | A-A9-D4-4844-F<br>BERVOVALVE-BOOSTER ACTUATOR ASSY. 27-D635G-B | FAILUME MODE-CONTANIMATION-DURING A RUN OF PROCEDURE 27-98481-8, THE ACTUATOR ASSY, MAS FOUND TO SE OUT OF TOLERANCE. SCRVO VALNE MULL SHIFT IS ATTRIBUTED TO METALLIC.<br>E. SCRVO VALNE MULL CURRENT VALUES DID NOT MEST THE REQUIRENENT OF MARCHE. THE MULL SHIFT IS ATTRIBUTED TO METALLIC.<br>PAATICLES SEINEEN THE VENDOR, | CORECTIVE ACTION-VENDOR CORRECTIVE ACTIONS ARE, A VISIBLE MOISTURE INDICATOR MAS INCORPORATED IN THEIR DRY AIR LIN<br>ES TO SUFFLEHENT THEIR TWICE DAILY MOISTURE DRAINING PROCEDURE. TORBUE MOTOR MOLDOGIAN SCREWS MERE REDESIGNED TO ELIN<br>INATE THE MEED FOR LOCKWIRING. LOCKWIRE IS CONSIDERED AN ADDITIONAL SOURCE OF CONTAMINATION. | A-A9-04-4644F<br>ACTUATOR-SERVOVALVE             | FAILURE MODE-CONTANIMATION LEAD TO GUT OF TOLERANCE CONDITION, ACTUATOR ASSOMBLY MAL CURRENT ENCEDED SPECIFICATION PAXIMUM: THE MALL BHIFT IS ATTRIBUTED TO PETALLIC PARTICLES SETMEEN THE ASMATUME AND THE TORBUE MOTOR POLE PIECES. SOUNCE OF PARTICLES WAS VENDOR INITIAL ASSEMBLY AND CLEANIMS. | CORECTIVE ACTION - FAILURE CONFIRMED. VENDOR REVIEWED TORBUE MOTOR BUBABBENELY PROCEDURES AND FOLND THAT HOLBTURE. IN THE DRYING ASPANS PRICE SOURCE FOR THE RUBT. VENDOR SHALLED A VIBILE MOIBTURE INDICATOR IN THESE DRY ASPALINES. FOR VICE HOTOR HOLD DOWN SCREWS WERE REDESIGNED TO ELIMINATE HEED FOR LOCK WERING. LOCK WERE IS COMBINERED AN ADDED SOURCE OF CONTANINATION. | A-99-04-4647-F<br>ACTUATOR ABBENETY, TORBLE NOTOR 2 | FAILURE MODE-CONTANTALION-ACTUATOR ASST REPORTEDLY DROVE THE BOOSTER MUMBER & EMSINE TO EXTREME POSITIVE FITCH WAS<br>LE Hydraulic pressure and applied to the system. Pailure was caused by a large metalic contanimany particle blockin<br>5 the tokaue motor armature. The red contanimany material was an oxide that probably pointo because of moisture depo<br>sits on those surfaces. |
| 8787EN<br>848-875EN                                                             | CORRECTIVE ACTION-CARR-P<br>AN ECP PRESENTATION TO C                                                                                                                                                     | HTORAUE IC-A/B<br>BOCSTER                                      | FAILURE MODE-CONTANIMATIO E. SCRVO VALVE MULL CURREN PARTICLES SETMEEN THE ARMA ND CLEANING AT THE VENEOR,                                                                                                                                                                                                                       | CORRECTIVE ACTION-VENDOR ES TO SUPPLEMENT THEIR THI INATE THE NEED FOR LOCKMI                                                                                                                                                                                                                                                               | MYDRAULIC-A/B<br>BOOSTER                         | FAILURE MODE-CONTANIMATR<br>IN MAINUM. THE MALL BHIFT<br>BOUNCE OF PARTICLES MAS 1                                                                                                                                                                                                                  | CORRECTIVE ACTION - FAILU<br>IN THE DRYING A;R NAS PRIN<br>TORQUE HOTOR HOLD DOWN 8<br>BOURCE OF CONTANTION.                                                                                                                                                                                                                                                                       | Mydraul IC-a/B<br>Booster                           | FAILURE MODE-CONTANIMATIO<br>LE HYDRAULIC PRESSURE MAS<br>6 THE TORGUE MOTOR ARMATUR<br>8178 ON THOSE BURFACES.                                                                                                                                                                                                                                                                              |

CORRECTIVE ACTION-VENDER PLACED MORE POSITIVE MOSFURE CONTROLS ON THE COMPRESSED ASS SUFPLY USED FOR FINAL TORSUE MOTOR CLEANING. VENDER CHANGED THE TORSUE FOODS MAKEN AND POLE PIECE PASTENERS FROM SLOTTED-MEAD SCREWS TO EXTERNAL MEX-MEAD SCREWS FROM SLOTTED-MEAD SCREWS TO EXTERNAL

GENERAL BYNAMICS CONVAIR BIVISION

| ۲                                             |                                                                      | ***                                              | <u> </u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                            | • • • • • • • • • • • • • • • • • • • |                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                   | •                         |                                                                                                                                                                                                                                                                                               | _                                                                                                                                                                  | 1                                     |
|-----------------------------------------------|----------------------------------------------------------------------|--------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|
| L.                                            | VENICLE BITE PRI VENCOR NAME<br>DATE BIF TIME BIF OTH VENCOR PART NO | YES HYDRAULIC RESE 083029<br>NO ARCH<br>104700-9 | IC PRESSURE WAS<br>E HOTOR ARMATUR<br>D DUE TO HOISTU<br>NAY MAVE BEEN T                                                                                                                                                                                                                                                                                                                                                                                                                              | PPESSED AIR BU<br>VENDOR ALSO C<br>SCREWS, EFFECT                                                                                                                                                                                                                                                                                                                                                          | VES BENDIX<br>NO 3057973              | AN WITH THE RE<br>DETWEEN BE.F<br>1 120.                                                                                                                                                                                                                                                                                                                  | NO 10 PEJECTED                                                                                                                                                    | VES BENDIK<br>NO 3057873  | AMAY WITH THE                                                                                                                                                                                                                                                                                 | AND 10 REJECTED                                                                                                                                                    | VES RECISTOFLEX                       |
|                                               | 0 4                                                                  |                                                  | PRAUL!                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | E CO<br>HEAD                                                                                                                                                                                                                                                                                                                                                                                               | ž 9                                   | REARAN<br>VARIEE<br>TO FRE                                                                                                                                                                                                                                                                                                                                | 2                                                                                                                                                                 | ž 8                       | BAEAK<br>PI 870                                                                                                                                                                                                                                                                               | 2                                                                                                                                                                  | 1                                     |
|                                               | 817E<br>71ME DI                                                      | FACTORY                                          | TINE HYD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | CAS TO TI<br>E FURTHEI<br>RHAL HEX                                                                                                                                                                                                                                                                                                                                                                         | CONVAIR                               | TRAVEL .                                                                                                                                                                                                                                                                                                                                                  | MATE. LO                                                                                                                                                          | 3/ <b>9</b>               | 1.E5 70 (                                                                                                                                                                                                                                                                                     | MTE. LO                                                                                                                                                            | CONVAIR                               |
| ¥ -                                           | VENICLE<br>DATE DIF                                                  | 76£<br>640106                                    | ITION EACH<br>TICLE BLOC<br>NE OXIDE P<br>E TORQUE N                                                                                                                                                                                                                                                                                                                                                                                                                                                  | RE INDICAT<br>CKED BEFOR<br>WB TO EXTE                                                                                                                                                                                                                                                                                                                                                                     | 640108                                | PISTON FAI<br>AKANAY AND<br>N 307-0662                                                                                                                                                                                                                                                                                                                    | ARED ALTER                                                                                                                                                        | 631230                    | PISTON PA<br>BLY REVEAL                                                                                                                                                                                                                                                                       | ARED ALTER                                                                                                                                                         | 188169                                |
| AULIC SYSTEM-AIRBO                            | DIF DATA BOUNCE<br>PART NUMBER                                       | FAR<br>27-06550-9                                | IAND TO EXTREME POBI<br>TALLIC POREIGH PAR.<br>THE POLE PIECE. TO<br>MAL CLEANING OF THE                                                                                                                                                                                                                                                                                                                                                                                                              | NDED VISUAL MOISTU<br>NAN, BLED AND RECHE<br>I SLOTTED MEAD SCREI                                                                                                                                                                                                                                                                                                                                          | UTP-PET<br>27-00507-3                 | PERATURE TEST, THE (<br>IE RESUIRED FOR BRE,<br>KHED, TEST SPECINE!                                                                                                                                                                                                                                                                                       | (AN 4227) AB PREFE                                                                                                                                                | UTP-PET<br>27-06567-3     | FERATURE TEST, THE<br>5 SO PSIG. DISABSED                                                                                                                                                                                                                                                     | (AN 4627) AS PREPE                                                                                                                                                 | UTP-5LT                               |
| DIFFICULTIES REVIEW-MYDRAULIC SYSTEM-AIRBORNE | TEST/REPORT NUMBER PAILED CONFONENT NAME                             | A-18-D4-4647F<br>BOOSTER ACTUATOR, BERVO VALVE   | FAILURE MODE-CONTANINATION. BERNO CYLINDER ACTUATOR MOVED HAND TO EXTREME POBITION EACH TINE HYDRAULIC PRESSURE WAS APPLIED. AND DID MOT RESPOND TO COMMAND BIGMALS. A LARGE NETALLIC FOREIGH PARTICLE BLOCKED THE TORGUE MOTOR ARBATURE. A RED CONTANINANT, AN OXIDE, WAS ON BOTH THE ARBATURE AND THE POLE PIECE. THE OXIDE PROBABLY FORMED DUE TO MOISTURE DEPOSITE ON THESE SURFACES. COMPRESSED AIR USED DURING FINAL CLEANING OF THE TORGUE MOTOR AIR GAP MAY HAVE BEEN THE SOURCE OF MOISTURE. | CORRECTIVE ACTION - PAILURE CONFIRMED. HYDRAULIC RESEARCH ADDED VISUAL HOISTURE INDICATORS TO THE COMPRESSED AIR SU<br>PPLY LINES. WHEN HOISTURE IS INDICATED THE SYSTEM IS SHUT DOWN, BLED AND RECHECKED BEFORE FURTHER USE. VENDOR ALSO C<br>HANNED THE TORGUE HOTOR MACHET AND POLE FIECE FASTEMERS FROM SLOTTED HEAD SCREWS TO EXTERNAL HEM HEAD SCREWS, EFFECT<br>IVE ALL CRDERS AFTER DECEMBER 1963. | 69F-3266.1<br>ACCUMALATOR             | FAILURE MODE-OUT OF TOLERANCE, DURING PET 225 DEGREES, TEMPERATURE TEST, THE PISTON FAILED TO BREARANAY WITH THE RE<br>Guired so psig (Hax.) Applied to the Pluid Port, the Pressure Required for Brearanay and travel varied between 32.8<br>And so psig. Disassembly Reyealed that Piston O-Ring NAS PINCHED. Test BPECINEN 307-D002. Refer to Frr 120. | CORECTIVE ACTION-SPEC. CHANGE TO CALL OUT NEW TYPE O-RING (AN 9227) AS PREFERRED ALTERNATE. LOTS 9 AND 10 REJECTED<br>To vendor for incorporation of New O-Rings. | 69F-3266.1<br>Accumalator | FAILURE MONE-OUT OF TOLERANCE. DURING PET RES DEGREES F TEMPERATURE TEST, THE PISTON FAILED TO BREAK ANNY WITH THE<br>Pressure reguired for breakany and travel varied from 85 to 50 psig. Disabsembly revealed that piston o-ring was pi<br>Wemed. Test specimen sid-otog, refer to frr 120. | CORRECTIVE ACTION-SPEC. CHAMGE TO CALL OUT NEW TYPE O-RING (AN 4827) AS PREFERRED ALTERNATE. LOTS S AND 10 REJECTED<br>To vendor for incorporation of New O-RINGS. | 69A191E<br>HYDRAIM IC PLEY HOAF ARRY. |
|                                               | 8791678<br>8C6-878768                                                | MYDRAULIC-A/B<br>BOOSTER                         | FAILURE MODE-CONTANIMATIC APPLIED, AND DID MOT RESP E. A RED CONTANIMANT, AN C RE DEPOSITS ON THESE SURFA ME SOURCE OF MOISTURE.                                                                                                                                                                                                                                                                                                                                                                      | CORRECTIVE ACTION - FAILURE COMFIR<br>PPLY LINES. WHEN MOISTURE IS INDICA<br>MANGED THE TORQUE MOTOR MACHET AND<br>IVE ALL CROERS AFTER DECEMBER 1943.                                                                                                                                                                                                                                                     | HYDRAULIC-A/B                         | FAILURE MODE-OUT OF TOLER<br>GUIRED SO PSIG (MAX.) APPL<br>AND SO PSIG, DISASSEMBLY A                                                                                                                                                                                                                                                                     | CORRECTIVE ACTION-SPEC. CHANGE TO CALL OUT TO VENDOR FOR INCORPORATION OF NEW O-RINGS.                                                                            | HYDRAULIC-A/B<br>BOOSTER  | FAILURE MODE-OUT OF TOLERANCE, DURING PET EES DI<br>PRESSURE REGUIRED FOR BREAKAWAY AND TRAVEL VARIET<br>MCHED, TEST SPECIMEN 310-0706, REFER TO FRR 180.                                                                                                                                     | CORRECTIVE ACTION-SPEC. CHANGE TO CALL OUT TO VENDOR FOR INCORPORATION OF NEW O-RINGS.                                                                             | HTDRAULIC-A/B<br>BOOSTER              |

FAILURE MODE-LEAK-EXTERNAL, AFTER COMPLETION OF ALL PRI AND BLI TEATS, THE BURST TEST WAS PERFORMED ON THE UNIT, BURST THES AT SOUPSIG CIL LEAKED FROM ANOUND THE END PITTIMS SLEEVE AT THE RATE OF ESCCANIM, RES, 18 ZERO LEAKA SC. REF. FPR MR P-409687 8/N 207-1288.

CONVAIR BIVISION

11 JUN 1106

|                                                                                           | DIFFICUTIES ACVICA-MYDRAULIC SYSTEM-AINDGRAF                                                                                                                                                                                                                                                                   | MAULIC BYSTEN-AIRBO                                     | ¥                                         |                                 |                               |         |
|-------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|-------------------------------------------|---------------------------------|-------------------------------|---------|
| 8787E W - 878 FE                                                                          | TESTARPORT HUMBER<br>FAILED COMPONENT NAME                                                                                                                                                                                                                                                                     | DIF DATA BOUNCE<br>PART NUMBER                          | MENICLE BITE PRI<br>BATE BIP TIME BIP OTH |                                 | VENDOR NAME<br>VENDOR PART NO |         |
| CORRECTIVE ACTION-NOME.                                                                   | COMECTIVE ACTION-MOME. UNIT TERTED FAR IN EXCESS OF LEWELS EXPERIENCED DURINGFLIGHT. REF. FR 854-2-105.                                                                                                                                                                                                        | .8 EXPERIENCED DURIN                                    | PLICHT. NEP. P.                           | . 654-2-105.                    |                               | •       |
| HYDRAULIC-A/B<br>BOOSTER                                                                  | 69A1910.2<br>HYDRAULIC PURP                                                                                                                                                                                                                                                                                    | UTP-BLT<br>87-06566-1                                   | SIEIG CONVAIR                             | 20                              | VICKERS<br>AA-60684-R-BA      | 2       |
| FAILURE MODE-OUT OF SPE<br>DROP PER S MINUTES AT IN<br>RIMG SLT TEMP-U16 TEST A           | FAILURE MODE-OUT OF SPECIFICATION. PEAR TRANSIENTS MERE 4830 PSIG. MAX ALLONDSLE 4000 PSIG. THERE MAS LEARAGE OF 1<br>Drop per 3 mimutes at immet fitting where separation occurred between pearous pitting and aluminum casting. Moted du<br>Ring 3Lt templuis test akis III 7.1.3 part 8/m 201-0200 pph4005. | 130 PSIG. MAX ALLOMA<br>RED BETWEEN PERROUG (<br>14085. | NE 4000 PS16.                             | MERE NAS LEAR<br>Iduae Cabtine. | ACE OF 1<br>MOTED BU          |         |
| CORRECTIVE ACTION-ECP 7869 SUBMITTED TO CHAIN FAILURE. FR 834-E-080, SUPPLEMENTS A AND 8. | CORRECTIVE ACTION-ECP 7669 SUBMITTED TO CHANGE BPECIFICATION TRANSIENT REQUIRENTS. OIL LEAKAGE MAS BUE TO FATIGUE<br>Failure. Fr 654-2-060, Supplements a and B.                                                                                                                                               | ICH TRANSIENT MEBUIM                                    | DENTS. OIL LEA                            | LAGE WAS DUE T                  | O FATIGUE                     |         |
| HYDRAULIC-A/B<br>BOOBTER                                                                  | ETAROTS<br>HTDRAULIC PUR                                                                                                                                                                                                                                                                                       | UTP-PET<br>27-06566-1                                   | SIEIE CONVIN                              | 5 G                             | VICKERS INC.<br>AA-60684-8-EA | ******* |
| FAILURE MODE-STRUCTURAL<br>DRAULIC LEARAGE RATE 1 C                                       | FAILURE MODE-STRUCTURAL-CRACKS IN MOUNTING BASE CAUSED BY PATIGUE STRESS DUE TO EXCESSIVE VIDAATION, RESULTED IN MY<br>Maulic Learage rate i Drop in 8 minutes. Part san 301-0187 ffm 3036.                                                                                                                    | PATIGUE BTREBB DUE                                      | O EKCESSINE VII                           | MATION, RESUL                   | 76 III                        |         |
| CORRECTIVE ACTION-810P                                                                    | TEST. FAILURE DUE TO FATIGUE. REF. PR 614-2-080, BUPPLEDEDITS A AND 8. LOT 12 ACCEPTED.                                                                                                                                                                                                                        | FR 654-E-060, BUFFL                                     | DEDITE A AND B.                           | LOT 12 ACCEPT                   | ś                             |         |
| HYDRAULIC-A/B<br>BODDIER                                                                  | NZ-A9-04-4600-F<br>ACTUATOR - BOOSTER ABJUSTNENT NUT                                                                                                                                                                                                                                                           | FAR<br>27-0880-7                                        | ELEG FACTORY                              | _                               | NO MEN MEN ARCH 104700-1      | I       |
| FAILURE MODE - LEAK EXT<br>REPORTED FAILURE MAS M                                         | LEAK EXTERNAL - HYDRALIC OIL WAS POARD DRIPPING PROM THE LEMBYM ABJUSTNENT MAT OF THE ACTUATOR. THE LEMS NOT CONTIRMED.                                                                                                                                                                                        | BOTH DIE FROM THE LEDIS                                 | H ABJUSTNEM H                             | IT OF THE ACT                   | A 708. VA                     |         |
| CORRECTIVE ACTION-NO CO                                                                   | CORRECTIVE ACTION-NO CORRECTIVE ACTION TAKEN.                                                                                                                                                                                                                                                                  |                                                         |                                           |                                 |                               |         |
| HTDAAULIC-A/B                                                                             | LY-90-10-228-F<br>ACCUMLATOR BERVICING MANIPOLD                                                                                                                                                                                                                                                                | FAR<br>E7-83308-8                                       | 3500 WAR                                  | 76.8 60/C                       |                               | ***     |

PASK 0610

CORRECTIVE ACTION-MANIFOLDS ARE NO LONGER PURCHABED ITEMS. SURVEILLANCE ON MANIFOLD WILL DE INCREADED.

PAILURE MODE-LEAR ENTERMAL. DUE TO MEALIGNMENT OF THREADS AND THE BLEED PORT MOLE.

SENERAL DYNAHICS CONVAIR DIVIDION

COMATI

18 JUN 1166

| 9991 MOT 91                                                                 | DIFFICULTIES REVIEW-HYBRAULIC SYSTEM-AISBORNE                                                                                                                                                                                                           | AULIC BYSTEN-AISBOR                        | ¥                                      |                  |              |                                                                      |               |
|-----------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|----------------------------------------|------------------|--------------|----------------------------------------------------------------------|---------------|
| 3731EH<br>348-3731EH                                                        | TEST/REPORT NUMBER<br>FAILED COMPONENT NAME                                                                                                                                                                                                             | DIF DATA SOUNCE<br>PART NUMBER             | VEHICLE<br>DATE DIF                    | 111E<br>11HE DIF | # 0<br># X   | WENTELE BITE PRI VENDOR MANE<br>BATE BIF TIME BIF OTH VENDOR PART NO |               |
| HYDRAUL IC-A/B<br>BOOSTER                                                   | A-DB-D4-4586-F<br>BOODIER TRANSDUER                                                                                                                                                                                                                     | FAR<br>27-08850-7                          | 9972                                   | PACTORY          | 88           | HYDRAULIC RESE<br>ARCH<br>104700-1                                   |               |
| PAILURE MODE-OUT OF SPECEN<br>STATIC GAIN AND 7 PERCEN                      | FAILURE MODE-OUT OF SPECIFICATION-THE BOOSTER E PITCH SERVOCYLINDER STATIC GAIN MAS S PERCENT BELOW BOOSTER 1 PITCH<br>STATIC GAIN AND 7 PERCENT BELOW MONIMAL, REPORTED FAILURE MAS NOT CONFISHED.                                                     | CYLINGER STATIC GAII<br>NS NOT CONTINED.   | E                                      | EACENT DES       | <u>\$</u>    | 87ER 1 P17CH                                                         |               |
| CORRECTIVE ACTION-SHOP P<br>MAS CAUSED BY MISREADING<br>II: 1363.           | CORRECTIVE ACTION-SHOP PERSONNEL NEME INFORMED OF THE PINDIMSS OF THIS REPORTS EMPLAINING THAT THE REPORTED FAILURE<br>Was caused by Hisreading of Optical Data in Signting the Deflection of Scoater Engine & Of Hissile 248D on December<br>11, 1983. | HGS OF THIS REPORT,<br>FLECTION OF SCOSTER | EXPLAINI<br>ENGINE E                   | ME THAT TO       | # 4<br>7 2 4 | RTED FAILURE<br>ON DECEMBER                                          |               |
| MYDRAULIC-A/B<br>BOOSTER                                                    | 68F1910.E<br>HTDRAULIC PUMP                                                                                                                                                                                                                             | UTP-8LT<br>R7-06966-1                      | *****                                  | CONVAIR          | 20           | TES VICKERS INC.<br>NO AA-GOSSS-R-EA                                 | į į           |
| FAILURE MOE-STRUCTURAL.                                                     | FAILURE MODE-STRUCTURAL, DURING ENVIRGHENTAL COMDITIQUA-THIRD AKIB OF BLT VIBRATION, PUNP CABE CRACKED AT MOUNTING<br>Plate blugs, caused by excessive vibration time. Part B/N 201-0288 FPR-4678.                                                      | HAD AKIS OF SLT VISH<br>OI-0289 FPR-4078.  | AA110K. P                              | 25 05            | CRACKE       | AT NOUNTING                                                          |               |
| CORRECTIVE ACTION-NO REC                                                    | CORRECTIVE ACTION-NO RECOMENDED ACTION. FR 654-2-040.                                                                                                                                                                                                   |                                            |                                        |                  |              |                                                                      | <del>4 </del> |
| HYDRAUL SC-A/B<br>BOOSTER                                                   | A-90-10-233-C<br>B-NUT HYDRAULIC PLESHOSE                                                                                                                                                                                                               | FAR<br>E7-06600-47                         | 61E<br>631204                          | Ę                | 20           | YES RESISTOPLEX<br>NO RE1225-47                                      | 200           |
| FAILURE MODE-BIRUCTURAL-CORECTIVE ACTION-MONE.                              | FAILURE MODE-BIRUCTURAL-B-NUT BPLIT LONGITUDINALLY THROUGH ONE PLAT.<br>Corrective action-Hone. Failure analysis canceled. Hissile sie part of E-upbate program-no contractual comeases.                                                                | OE PLAT.<br>61E PART OF E-UPATI            | PROSEASE                               |                  | 24 TAR       | COMERAGE                                                             |               |
| HYDRAIL IC-A/B<br>BOOSTER                                                   | LV-95-10-E3E-F<br>HYDRALLIC FLEMORE, S-MUT                                                                                                                                                                                                              | FAR<br>27-06571-68                         | ## ## ## ## ## ## ## ## ## ## ## ## ## | Ę                | 20           | TES AERCGUIP<br>NO 677025-8-0130                                     | *             |
| FAILURE MODE-LEAK EXTERN                                                    | FAILUME MODE-LEAK EXTERNAL. LEAKAGE AT END PITTIMG MEPORTED.                                                                                                                                                                                            | •                                          |                                        |                  |              |                                                                      |               |
| CORRECTIVE ACTION-FAILURE NOT CONFIR. D TO VERIFY LEARAGE PRIOR TO REMOVAL. | CORRECTIVE ACTION-FAILURE NOT CONFIRMED. 60/C RECOMENDED THAT HYDRAULIC PLEMHORES SUBPECTED OF LEAKAGE SE HOMITUKE<br>) to verify leakage prior to removal.                                                                                             | HAT HYDRAULIC PLEIN                        | ORE - PUBL                             | 10 B 04          | Eaka         | : DE NONI TUKE                                                       |               |

GENERAL BYNAMICS CONVAIR BIVIBION

11 JUN 11000

|          |                                                                                                     | DIPPICULTIES REVIEW-HYDRAULIC SYSTEM-AIMBORNE                                                                                                                                                                                                                    | ULIC STRTEM-AIRBORN                        | ~                       |                    |                         |                                           |        |
|----------|-----------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|-------------------------|--------------------|-------------------------|-------------------------------------------|--------|
| L        | 8787EH<br>808-878H                                                                                  | TEST/REPORT MUMBER<br>FAILED COMPONENT NAME                                                                                                                                                                                                                      | DIF DATA BOUNCE<br>PART NUMBER             | VEHICLE<br>DATE DIF     | 817E<br>71ME 01F   | I I O                   | VENDOR NAME<br>VENDOR PART NO             |        |
| 130      | MYDRAUL IC-A/B<br>BOOMTER                                                                           | LV-9D-04-4604-F<br>BOOSTER ACTUATOR ABBEHBLY, BERNO V 27-08550-7<br>ALVE                                                                                                                                                                                         | FAR<br>87-0850-7                           | 2001                    | A P                | 20                      | YES HYDRAULIC RESE<br>NO ARCH<br>104700-1 | i      |
|          | FAILURE MODE-DRIFT-DURIN<br>Dicated Booster & Engine<br>Bib Tebling.                                | FAILURE MODE-DRIFT-DURING THE THIRD DPL OF NIBSILE 350-3 THE LANDLINE READINGS OF THE 4-MOURS MOLD AFTER LOADING IN<br>Dicated booster 1 emgine was drifting off the Mall Pobliton. Reported Failure was not confirmed during Failure Amaly<br>His testing.      | LANDLINE READINGS<br>REPORTED FAILURE NA   | 0 114 4-1<br>10 HOT COM | FIRED DU           | E AF                    | ER CONDING IN<br>FAILURE ANALY            |        |
|          | CORFECTIVE ACTION-MISSIL<br>MISSILE 350D MAS 157D.                                                  | CORRECTIVE ACTION-MISSILE 350-D IS BEING RECYCLED AT 80/C. SEVERAL CHECKOUTS OF THE AUTOPILOT SYSTEM WILL BE MADE.<br>Hissile 3500 Mms 1570.                                                                                                                     | EVERAL CHECKOUTS OF                        | THE AUTO                | TLOT BY            | 2                       | IL SE MDE.                                |        |
| Ι.       | HYDRAULIC-A/B<br>BOOSTER                                                                            | 45F-1918-1<br>Accumaator-o-Ring                                                                                                                                                                                                                                  | UTP-SLT<br>27-06507-3                      | 231183                  | COMVAIR            | VES BENDIX<br>NO 305797 | 8END 1 X<br>3057873                       |        |
|          | FAILURE HODE-OUT OF TOLE<br>ER HOUR HAS HOTED (NO LEA                                               | FAILURY HODE-OUT OF TOLERANCE, DURING BLT-TDUP-VIBRATION TEST, INTERNAL HYDRAULIC LEAKAGE OF<br>Er hour has hoted (no leakage allomed), test bpecimen Boi-Oigs, refer to par 180. Pailure due                                                                    | T, INTERNAL HYDRAUA<br>6, REFER TO FRR 180 | ic Learad<br>. Pailure  | DUE TO G           | APPROXIMATO TO OPRING.  | APPROXIMATELY 1/2 CC P<br>TO O-RIMG.      |        |
|          | CCARECTIVE ACTION-SPEC.<br>D 10 REJECTED TO VENDOR F                                                | CCARECTIVE ACTION-SPEC. CHANGE MIS INITIATED TO CALL OUT NEW TYPE O-RING (ANGRET) AS PREFERRED ALTERNATE. LOTS S AN                                                                                                                                              | TYPE O-RING CAMPES                         | (7) AB PRE              | CARCO AL           | TEANA                   | TE. LOTS S AN                             | ······ |
| 1 4      | HYDRAUL IC-A/B<br>BOOSTER                                                                           | A-98-04-4508-F<br>ACTUATOR-O-RING                                                                                                                                                                                                                                | FAR<br>27-06350-9                          | <b>1</b>                | FACTORY            | YES Y                   | VES HYDRAULIC RESE<br>NO ARCH<br>104700-8 |        |
|          | FAILURE HODE-LEAK (EXTERNAL<br>VEHICLE 3E, THE FAILURE WAS<br>ON A CUT AREA IN THE C-RIME.          | AK (EXTERNAL). THE BODGTER ACTUATOR ASSEMBLY REPORTEDLY FAILED AT THE 60/C PACTORY DURING TESTING OF FAILURE WAS DUE TO A HYDRAULIC LEAK AT STATIC CONDITIONS. THE FAILURE WAS CONTINUED AND RESULTED FAILURE CARING.                                            | REPORTEDLY PAILED A                        | 71 THE 60/              | PACTORY<br>CONFIRM | 2 A B                   | M TESTING OF                              |        |
|          | CORRECTIVE ACTION-THE VE<br>E CORRECT NETHOD OF INSTA                                               | CORRECTIVE ACTION-THE VENDOR INSTALLED BETTER BUALITY CONTROL FOR LEARANE BY AGINGTRUCTING ASSENDLY PERSONNEL IN<br>CORRECT NETHOD OF INSTALLING COMPONENTS CONTAINING O-RINGS.                                                                                  | L FOR LEARANE BY ME                        | 1146TRUCT               | 4 484230           | 7                       | RECIPIED. IN TH                           |        |
| <u> </u> | HYDRAULIC-A/B<br>BOOSTER                                                                            | R7C-3159<br>VALVE-BAPETY RELIEF                                                                                                                                                                                                                                  | UTP-PET<br>E7-06561-1                      | 2118                    | COMANIA            | 2 0                     | VES BENECH-PANTER<br>NO 8030              | 27.78  |
|          | FAILURE MODE-OUT OF TOLERANCE.<br>CC/MIM. (SPECIFICATION MAXIMUM<br>MBER 4, REFER TO FAR MUMBER ORF | FAILURE MOCE-OUT OF TOLERANCE. BURING PET MIGM TENPERATURE. (PLUS RES DEGREES P) TEST INTERNAL LEARAGE MAS 0.4, 7.6<br>CC/Min. (Specification Maximum 16 CC/Min.) No Learage at ambient Tenperature. Test specimen bumber 310-6421, Lot muser to par mumber 007. | (PLUS 229 DEGREGS P<br>JENT TEMPERATURE, 1 | 7, 7687 1N<br>1687 8PCS | Com LE             | 34446<br>18 810         | W 8.4, 7.6                                |        |

CORRECTIVE ACTION-SPECIFICATION CHANGED TO ALLOW HORE LEAKAGE.

PASK 0062

18 1CH 1866

|          | DIVIDION |
|----------|----------|
| THE RAIL | CONVAIR  |

| FILED CONTONENT NAMES  PART NA |                             | DIFFICULTIES REVIEW-MYDRAULIC SYSTEM-AIRBORNE                                                       | RAULIC BYSTEN-AINBON                                       | ¥                                        |             |       |                                              |      |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|-----------------------------------------------------------------------------------------------------|------------------------------------------------------------|------------------------------------------|-------------|-------|----------------------------------------------|------|
| W · W - W & W &                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | _                           | TEST/REPORT NUMBER<br>FAILED COMPONENT NAME                                                         | DIF DATA BOURCE<br>PART NUMBER                             | VEMICLE<br>DATE DIF                      | 11 01F      | = E   | VENDOR NAME<br>VENDOR PART NO                |      |
| u ·   u ·   a   u · o                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 3 %                         | A1910.2<br>Draulc Pump                                                                              | UTP-P4T<br>87-06566-1                                      | 981180                                   | 3/ <b>9</b> |       | VICKERS<br>AA-60684-R-EA                     | •    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | RESSUR                      | ATION. ENVIRONEMNAL CONDITION: IS 4000 PSIG. PART S/N E01-GE                                        | 8-INITIAL PROOF CYCL<br>88 FPR-4060.                       | THESOME T                                | READ I WE   | 5     |                                              |      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 1 4 4 8                     | TION CHANGE TO REVISE TEST SETU<br>AS-04-4556-F<br>TUATOR/BOOSTER SERVO CYLINDER A                  | FAR<br>FAR<br>8 27-06550-7                                 | 2-750 La 027 G                           | PACTORY     | 3 3 2 | ENT B.<br>HTDRAULIC RESE<br>ARCH<br>104700-1 | į    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | PECIFI<br>DERBIZ<br>BOMEL   | CATION. THE BODDER ACTUATOR AS<br>ED O-RING MEDI THE BENVOCYLINDE<br>RESPONSIBLE AT THE VENDORS FAC | SEDELY LEAKED HYDRAL<br>R WAS ASBERLED.<br>R WAS ASBERLED. | ALIC PLUID.                              | THIS FAI    | ורתעב | Ms causED DT                                 | 7 t  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 78 %                        | C-3151<br>LVE-3AFETY RELIEF                                                                         | UTF-PET<br>E7-08581-1                                      | Bille                                    | CORVAIR     | 58    | VINSON MF6.                                  | 2011 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | OLERAIK<br>1875 FI          | IE. DURING PET-LON TEMPERATURE<br>NID (GPECIFICATION IB 3610 P810                                   | (-50 DECARES F) TEST<br>MAXIMM). TEST SPEC                 | I, THE RATE                              | D FLOW DI   | F     | ENTIAL PRESSUR<br>OT MARER 11.               |      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | CORRECTIVE ACTION-ALL UNITS | OF LOT NUMBER 18 REJECTED BACK                                                                      | TO VENDOR.                                                 |                                          |             |       |                                              |      |
| LEAKED GAS FROM PREMATIC SIDE OF INTERMEDIATE PISTON DUE TO INTERNAL SOME PLATING DEFE. AL MUNDER 405-1138, ALL ACCUMULATORS TO BE MADE FROM SOLID STOCK. PLATING SOURCE ADVISED SOCE AFTER PLATING. INSPECTION METHODS WERE IMPROVED.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 38                          | -80-10-227-F<br>Deter Hydrau, ic accumaaton                                                         | FAR<br>87-06554-8                                          | 52 52 52 52 52 52 52 52 52 52 52 52 52 5 | ¥,          |       | FEACOCK<br>\$1310-3                          | •    |
| IL MANGER 403-1138; ALL ACCUMULATORS TO BE MADE PROM BOLID STOCK. PLATING BOURCE ADVISED NOR AFTER PLATING. INSPECTION NETHODS HERE IMPROMED.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | ERMAL.                      | LEAKED GAS FROM PACUMATIC SIDE                                                                      | OF INTERNEDIATE PIL                                        | 101 PUE 10                               | INTERNAL    | \$    | E PLATING BOTE                               |      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | # BER!                      | L MUMBER 403-1130, ALL ACCUMUR.                                                                     | ATORS TO BE MADE PROMETHONS                                | # ec.16 a.                               | OCR. PLAT   | 1     | BOUNCE ABVISED                               |      |

SENERAL BYNAHICS CONVAIR DIVISION

DIFFICULTIES REVIEW-HYDRAULIC SYSTEM-AIRBORNE

11 204 1966

| COATOTO<br>HYDRAULIC PUM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| RUCTURAL-PUMP CARE CRACKED BUE TO ENVIRONMENTAL COMDITIONS-THIND AKIS VIBRAION SMEEP OF PRT OPERATIN<br>2750 RPH, 23 4PH OUTPUT, VIB. SMEEP WAS AT 450 CPS. PART S/N 208-0374 FPR-4067.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| CORRECTIVE ACTION-REDUCED PRI VIBRATION TESTING REQUIRENENTS CONSISTANT METHOD STATE-DSS-E-DSS- DRACLIC-A/B SLV-SS-CA-4502-F FAR 7101 FACTORY VE NYDRACLIC OSTER ACTUATOR O-RIMG R7-04550-7 691118 NO ARCH 104700-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| FAILURE MODE-EXTERNAL LEAR. THE BOOSTER SERVICYLINDER ASSENDLY FAILED AT 60/C FACTORY DURING THE TESTIME. THE BERYD CYLINDER REPORTEDLY LEAKED HYDRALIC FLUID WITH LITTLE OR NO PRESSURE APPLIED, FAILURE RESULTED FROM A CUT AREA ON O PRING. THE CUT MOST LIKELY OCCURRED LAKEN THE O-RING AND FLOM-LIMITER FLUIG ASSENDLY MERE INSERTED INTO THE FLOM-LIMIT ER SECTION OF THE SERVOCYLINDER.  CORRECTIVE ACTION-MEN O-RING MAS INSTALLED, AND APTER 39 HOURS OF STATIC TESTIMS WITH HYDRALIC PLUID AT ZO POIG, IN COLRECTIVE ACTION-MEN O-RING MAS INSTALLED, AND APTER 39 HOURS OF STATIC TESTIMS WITH HYDRALIC FLUID AT ZO POIG, IN O LEARAGE OCCURRED. TO PREVENT PUTURE PROBLEM NEME REINSTRUCTED IN THE CORRE |
| CT METHOD OF INSTALLING COMPONENTS CONTAINING O-RINGS. TORALLIC-A/B LV-JA-04-4505-F ACTUATOR ASSEMBLY ACTUATOR ASSEMBLY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| FAILURE MOEFFAIL BURING OFERATION, THE BOODTER ACTUATOR ABBENDLY REPORTEDLY PAILED AT THE 60/C PRODUCT SUPPORT SEN<br>TER DURING PRELIMINARY CHECKOUT (PRIOR TO FINAL CHECKOUT OF VEHICLE 1780). THE ACTUATOR ABBY, REPORTEDLY REACIED IN<br>THE OPPOSITE DIRECTION TO THE IMPUT DIGMAL, BUBSEQUENT TESTING FALLED TO REVEAL ANY DISCREPANCIED. THE ERROR WAS CAU<br>BED BY THE NISUSE OF THE TEST EQUIPMENT AT THE PRODUCT BUFFORT CENTER.                                                                                                                                                                                                                                                                           |
| CONFECTIVE ACTION-APPROPRATE PERSONNEL AT THE PRODUCT BUPPORT CENTER NERE INFORMED OF THE ERROR. THE ACTUATOR ASST.  MAS RETURNED TO THE PRODUCT SUPPORT CENTER FOR REEVALUATION OF THIS PHASE OF TEST.  PAS PAS BULLAGE PROTOCT SUPPORT CENTER FOR REEVALUATION OF THIS PHASE OF TEST.                                                                                                                                                                                                                                                                                                                                                                                                                               |
| HYDRAULIC ACCUMULATOR, O-RIM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

CORRECTIVE ACTION-60/C REVIEWED G-RIMS BEAL PROBLEMS. 80/C RECOMMENDED REMOVAL OF ACCUMULATOR FROM HYDRAULIC STRIEM -DID NOT RECEIVE CUSTOMER APPROVAL.

FAILURE MODE-LEAR INTERNAL. PREUMATIC PRECHARGE PRESSURE DROP.

11 104 1106

| 1 0 K  |
|--------|
| CONVAI |
|        |

|                                                                                     | DIFFICULTIES REVIEW-HYDRAULIC SYSTEM-AIRBORNE                                                                                                                                                                                                                                                                                                               | RAULIC BYSTEH-AIRBO                                               | ¥                                    |                         |            |                                                     |                                         |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|--------------------------------------|-------------------------|------------|-----------------------------------------------------|-----------------------------------------|
| 8787EN<br>848-8787EN                                                                | TEST/REPORT NUMBER<br>FAILED COMPONENT NAME                                                                                                                                                                                                                                                                                                                 | DIF DATA SOURCE<br>PART NUMBER                                    | VEHICLE<br>DATE DIF                  | 817E<br>7.1ME DIF       | 1 20       | SITE PRI VENDOR NAME<br>TIME BIP OTH VENDOR PART NO |                                         |
| HTBRAULIC-A/B<br>BOOSTER                                                            | LV-SD-EEE-F<br>HYDRAULIC ACCUMULATOR, G-RING                                                                                                                                                                                                                                                                                                                | FAR<br>27-00984-3                                                 | 8870<br>681100                       | Ę                       |            | PEACOCH<br>51310-3-6                                | ***                                     |
| FAILURE MODE-LEAR IN                                                                | INTERMAL-LEAKED GAS PROM PMEUMATIC TO HYDRAULIC SIDE OF THE INTERMEDIATE PISTON.                                                                                                                                                                                                                                                                            | DRAULIC SIDE OF THE                                               | INTERNED I                           | 17E P18TQ               |            |                                                     |                                         |
| CORP.CCTIVE ACTION-AN                                                               | CORRECTIVE ACTION-ALL VENDOR STOCK REINSPECTED. ASSENSLY AND INSPECTION PERSONEL ADVISED OF DIMENSIONAL DISCREPANCE. RESULTING FROM INSPECTION ERROR.                                                                                                                                                                                                       | AD INSPECTION PEASO                                               | EL ADVIDE                            | OF BINE                 | 8          | AL DIBCREPARCI                                      |                                         |
| HTDRAULIC: A/B<br>BODSTER                                                           | NZ-99-E21-F<br>MAMUALLY OPERATED PLOM-CONTROL VI                                                                                                                                                                                                                                                                                                            | FAR<br>Val 27-06566-3                                             | 240<br>331104                        | FACTORY                 | <b>2</b> 2 | DTERER<br>12000                                     | ****                                    |
| FAILURE MODE-LEAK INTERNA<br>CORRECTIVE ACTION-VENDOR                               | R INTERNAL-DUE TO OUT OF ROLADMESS OF THE VALVE POPPET BEAT AND HOME COMPLIANCE MITH BLUEPRINT.<br>H-VENDOR VERIFIED THAT PARTS IN STOCK HET BLUEPRINT REQUIREMENTS.                                                                                                                                                                                        | VALVE POPPET BEAT AI<br>BLUEPRINT REGUIREDES                      | 6 101 CO                             | PL1ANCE                 | 1          | DLUEPRINT.                                          |                                         |
| HTDRAULIC-A/B<br>BODSTER                                                            | A-98-04-4498-F<br>BODSTER ACTUATOR ABSEMBLY                                                                                                                                                                                                                                                                                                                 | FAR<br>E7-06350-0                                                 | %<br>\$31101                         | FACTORY                 | £ 6        | TES HTDRAULIC RESE<br>NO ARCH<br>104700-0           | *************************************** |
| FAILURE MODE-OUT OF MUCHENT TESTS RECORD THE MULL TO BE D PUL RRENT WAS OUT OF TOLE | OF TOLERANCE, THE BOOSTER SERVOCYLINDER FAILED WHEN THE MALL WAS FOUND TO BE OUT OF TOLERANCE, SUB-<br>IORDED A STATIC CURRENT OF MINUS D.03 MILLIAMPERE MITH AN IOC-TYPE AMPLIFIER, SPECIFICATION REQUIRES<br>FILUS OR MINUS D.2 MILLIAMPERE, MONEVER, WHEN CHECKED WITH AN AIG-TYPE AMPLIFIER THE STATIC MULL CU<br>TOLERANCE AT MINUS D.245 MILLIAMPERE. | AILED WHEN THE MALL<br>AMPERE WITH AN 10C-<br>MEN CHECKED WITH AN | MAS FOUND<br>TYPE AND-LI<br>AIG-TYPE | TO BE OUTIER. SHE       | 9 1 3 X    | TOLERANCE. SUB<br>ATION REQUIRES<br>STATIC MULL CU  |                                         |
| CORECTIVE ACTION-SI<br>T EQUIPMENT, MODIFIE<br>PUT SIGNALS FROM AIG                 | CORRECTIVE ACTION-SERVO VALUE MUL WILL BE CHECKED WITH AIG-TYPE SERVOAMPLIFIERS TO PREVENT FUTURE DISPARITY OF TES<br>EQUIPMENT, MODIFICATION ALSO INCLUDED TO ALLOHED RECEIVING-INSPECTION PERSONNEL TO ADJUST BERVO VALUE MULL MITH IN<br>UT SIGHALS FROM AIG-TIPE BERVOAMPLIFIER.                                                                        | 6-TYPE SERVOAMPLIFI<br>6-INSPECTION PERSON                        | EPS TO PRE                           | VENT FUTU<br>UBT BERVO  | A          | SPARITY OF TES<br>E MALL WITH IN                    |                                         |
| HYDRAULIC-A/B                                                                       | LV-A9-10-212-F<br>NYDRAULIC FLEWGOE                                                                                                                                                                                                                                                                                                                         | FAR<br>27-08571-49                                                | £160<br>631031                       | FACTORY                 | ភ្ជំ       | 7E3 AEROQUIP<br>NO 668938-8-0140                    | i                                       |
| FAILURE MODE-LEAK EXTERNA<br>CORRECTIVE ACTION-PAILURE                              | FAILUNE MODE-LEAK EXTERNAL-OCCURRED AT THE BRAID AND BOCKET JUNCTION OF THE ACTUATOR END FITTING.<br>Corrective action-Pailure not confirmed, Buestionable Pleimoses to be wifte clear and watched closely to verify tha                                                                                                                                    | 17 JUNCTION OF THE A<br>WOSES TO BE WIPEE C                       | CTUATOR EN                           | D F1773166<br>ATCHED CL |            | TO WEATPY THA                                       |                                         |
|                                                                                     |                                                                                                                                                                                                                                                                                                                                                             |                                                                   |                                      |                         |            |                                                     |                                         |
|                                                                                     |                                                                                                                                                                                                                                                                                                                                                             |                                                                   |                                      |                         |            |                                                     | _                                       |

| 2        | 31 VI & I |
|----------|-----------|
| SCHERAL. | COMVAIR   |

| 400                                                                                                                                            | CONVAIR SIVILENCE                                                                                                                                                                                                                                                                                                                                                                                      | AI BI CM                                                       |                                       |                         |                                                            |        |
|------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------|---------------------------------------|-------------------------|------------------------------------------------------------|--------|
|                                                                                                                                                | DIFFICULTIES REVIEW-MYDRAULIC SYSTEM-AIRDONNE                                                                                                                                                                                                                                                                                                                                                          | AULIC BYSTEN-AIRBON                                            | ¥                                     |                         |                                                            |        |
| 8787EN<br>848-8787EN                                                                                                                           | TESTASPORT HUMBER<br>PAILED COMPONENT MANK                                                                                                                                                                                                                                                                                                                                                             | DIF DATA BOURCE<br>PART NUMBER                                 | WENICLE<br>DATE DIF                   | 0 116 DHIT              | BITE PRI VENDOR MANG                                       |        |
| HTDRAULIC-A/B<br>BOOSTER                                                                                                                       | A-JA-D4-4433-F<br>ACTUATOR ASSEMBLY: BERVO VALVE                                                                                                                                                                                                                                                                                                                                                       | FAR<br>27-06380-7                                              | 431027                                | PACTORY V               | VES HYDRANLIC RESE<br>NO ARCH<br>104700-1                  | :      |
| FAILURE WODE-OUT OF TOLERAW". S<br>AS CAUSED BY RESTRICTION OF THE C<br>ANTS IN THIS AREA WUST HAVE BEEN<br>IN FILTER PROTECTING THE ORIFICES. | FAILURE WODE-OUT OF TOLERAW'. SERWOWALNE WOULD NOT MULL, AND PHEN BET AT THE MIDPOINT, MULL WOULD DRIFT. FAILURE M<br>AS CAUSED BY RESTRICTION OF THE C-F FIRST STACE PRESSURE DROPPING ORIFICE, PROBABLY CAUSED BY CONTAMINATS. CONTAMIN<br>ANIS IN THIS AREA MUST HAVE BEEN ASSEMBLED INTO THE BERVO VALVE SINCE THEY MEME TOO LARGE TO PASS THROUGH A SO-HICRO<br>H FILTER PROTECTING THE ORIFICES. | ND PACH BET AT THE PPING ONLYTICE, PRODUCE LVE BINCE THEF NEDR | HIDPOINT,<br>MARLY CAUSE<br>TOO LANGE | MAL MOULD<br>D BY CONTA | DAIFT. FAILURE W<br>MINANTS. CONTANIM<br>MROUGH A SO-MICRO |        |
| CORRECTIVE ACTION-25 SERVOC<br>INANTS. BERVOYALVE ASSEMBLY<br>INCORPORATED FOR USE ON THE                                                      | CORECTIVE ACTION-25 SERVOCYLINDERS PEADY POR BUIPMENT TO GO/C MERE COMPLETELY DISTRBUNED AND EXAMINED FOR CONTAN<br>Inants. Mervoyalve assembly and test operations mere moved into a super clean boom. Go/c clean room procedures here<br>Incorpated for use on the servoyalve at vendors plant.                                                                                                      | O/C WENE COMPLETELY<br>NTO A BUPER CLEAN R                     | , 018188EH                            | LED AND EX              | ANINED FOR CONTAN<br>PROCEDURES NEAE                       |        |
| HTDRAULIC-A/B                                                                                                                                  | A-A8-10-214-F<br>HTDRAULIC FLEDHOSE                                                                                                                                                                                                                                                                                                                                                                    | FAR<br>87-06578-47                                             | 2330<br>631022                        | FACTORY Y               | YES AERCAUIP<br>NO 677025-8-0140                           | •      |
| FAILURE MODE-LEAK EXTER                                                                                                                        | FAILURE MODE-LEAK EXTERNAL-LEAKED AT OME MALF TO OME 1MCM FROM DED FITTIMS. CORRECTIVE ACTION-FAILURE NOT CONFIRMED-NO PURTHER ACTION.                                                                                                                                                                                                                                                                 | NOM END F1171M6.                                               |                                       |                         |                                                            |        |
| HYDRAULIC-A/B<br>BODS TER                                                                                                                      | A-A9-10-214-F<br>HYDRAULIC PLEBHORE                                                                                                                                                                                                                                                                                                                                                                    | FAR<br>E7-06371-48                                             | 220102                                | FACTORY Y               | YES AEROBUIP<br>NO 666539-6-0140                           | 131000 |
| FAILURE MODE-LEAR ERTER                                                                                                                        | FAILURE MODE-LEAK EXTERMAL-LEAKED AT UNE MALF INCH PROM END-FITTIMS.<br>Corrective action-cuttims blades and cooling Pluids uned in Assenbly Operations were redesidated in december, 1948.                                                                                                                                                                                                            | -61771M6.<br>1 ASSEMBLY OFERATIO                               |                                       | X1 035152               | DECEMBER, 1949.                                            |        |
|                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                |                                       |                         |                                                            |        |
| HYDRAULIC-A/B                                                                                                                                  | 27A-2013<br>VALVE-BAFETY RELIEF                                                                                                                                                                                                                                                                                                                                                                        | 87-06581-1                                                     | 1013                                  |                         | 168 VINSON W. E.                                           |        |
| PAILURE MODE-OUT OF TOL                                                                                                                        | PAILUME MODE-OUT OF TOLERANCE, DURING PE! LIFE TEAT, THE LEGRAGE AT 95 PERCENT MESCAT PRESSURE NAS 12-0-3-0- AND 10<br>O CC/MIN. (SPEC. 19 SCC/MIN.).TEST SPECINEN BOR-DRES.                                                                                                                                                                                                                           | LAAGE AT DS PERCEN                                             | 7 BESCAT P                            | T                       | 12-0-3-0. AND 10                                           |        |
| CORRECTIVE ACTION-ALL UNITS OF                                                                                                                 | MITS OF LOT 18 MERE REJECTED.                                                                                                                                                                                                                                                                                                                                                                          |                                                                |                                       |                         |                                                            |        |
|                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                |                                       |                         |                                                            |        |
|                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                |                                       |                         | PACC 0045                                                  |        |

11 1/4 11

GENERAL STRANICS CONTAIN DIVIBION

| -                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                              | DIFFICULTIES REVIEW-HYDRAULIC STRTEM-AIRBORNE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | AULIC STSTEN-AIRBOR                                                                                             | ¥                                                  |                                           |                                         |                                                                      |                 |               |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|----------------------------------------------------|-------------------------------------------|-----------------------------------------|----------------------------------------------------------------------|-----------------|---------------|--|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 818-81EN                                                                                                                                                     | TEST/REPORT NUMBER<br>FAILED COMPONENT NAME                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | DIF DATA BOUNCE<br>PART HUNGER                                                                                  | VEHICLE<br>DATE DIP                                | 11 0 1 F                                  | Z 5                                     | VENICLE BITE PRI VENDOR BANE<br>DATE DIP TIME DIP OTH VENDOR PART NO | 3 -             | ومنتجة ومنتوع |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | HYDRAIG IC-A/B                                                                                                                                               | ETAEBTS.E<br>HTDRALLIG PUMP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | UTP-PET<br>E7-06865-1                                                                                           | 611116                                             | CONVAIR                                   | ž g                                     | VICKERS<br>AA-80684-A-EA                                             | 5               |               |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | FAILURE MODE-OUT OF SPECE<br>800 PRIG AND 4470 PRIG MER<br>8.                                                                                                | JI OF SPECIFICATION. ENVINOMENTAL COMBITIONS-LAT PEAK TRANSIENT PRESSURES OF 4100 PSIG, 4130 PSIG, 4<br>To Psig nere recorded During Lat. The max allomble pressure has 4000 Psig. Part 5/N 301-0387 FPR-508                                                                                                                                                                                                                                                                                                                                                                                                           | -IAT PEAK TRANSIENT<br>GMALE PRESSURE NAS                                                                       | PRESSURES                                          | OF 4100                                   | 4 ×                                     | 4130 PB                                                              | 16. 4           |               |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | CORRECTIVE ACTION-REVISE                                                                                                                                     | ION-REVISE THE SPECIFICATION TO CHANGE THE TEST SETUP. ECP 7865 BUBNITTED, FR 654-2-060, SUPPLEMENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | ST SETUP. ECP 7848                                                                                              | PUBHI 17ED ,                                       | FR 654-1                                  | 000-1                                   | . SUPPLEM                                                            | •               |               |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | HTBRALL IC-A/B<br>BOOSTER                                                                                                                                    | A-99-04-4483-F<br>BOOSTER ACTUATOR ASSEMBLY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | FAR<br>27-06550-7                                                                                               | 2430<br>631000                                     | PACTORY                                   | # Q                                     | YES HYDRAULIC MESE<br>NO ARCH<br>104700-1                            | AESE            | 9878          |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | FAILUKE MYDE-LEAK ENTERNA<br>BBUME RANGED BEINEEN 2000<br>OT EKCEED ALLOMABLE LEARAG                                                                         | EAK EXTERNAL. BOOSTER ACTUATOR ASSY (87M EDS-1935) LEAKED HYDRAULIC FLUID THROUGH PISTON ROD WHILE PRE<br>14EEN 2000 AND 3000 PSIG. (OPERATING PRESSURE 3000 PSIG). FAILURE NOT CONTINUED. STATIC LEAKAGE DID N<br>ABLE LEAKAGE SPECIFIED. (NAXIMM ALLONED LEAKAGE IS 1 DROP IN ES FULL-STOKE OPERATING CYCLES).                                                                                                                                                                                                                                                                                                       | DSS) LEAKED MYDRAUL.<br>3000 PSIG). FAILUR<br>AGE IN 1 DROF IN ES                                               | IC FLUID T<br>E NOT CONF<br>FULL-BTOX              | HROUGH PI<br>IRMED. BI<br>E OPERATI       | 18108<br>1810<br>196                    | ROD WILL<br>LEAKAGE !                                                | 7 0<br>0<br>7 x |               |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | CORECTIVE ACTION-THE VEN<br>MS. AND GOC RECEIVING MAS                                                                                                        | ON-THE VENDOR (HTDRALLIC RESEARCH) WAS REQUESTED TO INSTALL BETTER GUALITY CONTROL IN SELECTING O-RI                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | STED TO INSTALL BET'<br>D MEET THE REGUINEM                                                                     | TER BUALIT<br>ENTS OF M                            | 7 CONTROL<br>L-P-25731                    |                                         | JELECT 146                                                           | 2               |               |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | MYDEAULIC-A.B<br>BOOSIER                                                                                                                                     | A-99-04-4491-F<br>BOOSTER ACTUATOR ASSENBLY-O-RING                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | FAR<br>27-08550-7                                                                                               | 2430<br>631000                                     | PACTORY                                   | S Q                                     | YES HYDRAULIC RESE<br>ND ARCH<br>104700-1                            | 200             | ****          |  |
| and the second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second s | FAILURE MODELEAR EXTERNA E THE PHESSURE RANGED BETW OO MAKD TO GIVE A GOOD DIN MAN VALUE SITULATED. IT M E PURCHASED MITH A SHORE-A PERCENT PER MIL-P-2573E. | FAILURE "COLELEAR EXTERNAL. BOOGTER SERVOCYLINGER (B/W E03-3558) LEAKED HYDRAULIC FLUID THROUCH THE PISTON ROD WHILE I'VE PAILURE RESULTED PROM O-RINKS TO STAKE RANKED BETWEEN ECOND THAN 2000 PRIGHT IN FAILURE RESULTED PROM O-RINKS TO STAKE A GOOD DYNAMIC HYDRAULIC SEAL, SPECIFICATIONS REQUIRES A MINIMUM MARDNESS OF SHORE-ASS, WITH NO MAXI WAN VALUE SIPULATED BY SHORE APP. O-RINKS USED AN E PORCHASED WITH A SHORE APP. O-RINKS USED ARE FORCHASED WITH A SHORE APP. O-RINKS USED ARE FORCHASED WITH A SHORE-A DURCHETER VALUE OF 60 PLUS OR MINUS S, THE MINIMUM ALLOMABLE PERCENTAGE ELONGATION IS 180 | 1958) LEAKED HYDRAW<br>PRESSURE 3000 PSIG)<br>B REQUIRES A HIMPHO<br>MS POOR AT MADNES:<br>US S. THE MINIMUM AL | LIC FLUID THE FAIL H HARDNESS SES ABOVE LLCHABLE P | THROUGH THE RESULT OF SHORE A-1 ERCENTAGE | A 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 | PRON O-RES<br>WITH NO<br>-RINGS USE                                  | T SA SE         |               |  |
| •                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | CORRECTIVE ACTION-THE VEN<br>MAS, AND GOC RECEIVING MAS                                                                                                      | ON-THE VENOCA (HYDRAULIC RESEARCH) WAS REQUESTED TO INSTALL BETTER QUALITY CONTROL IN SELECTING O-RI<br>ELVING MAS NOTIFIED THAT ALL O-RINGS RECEIVED HEET THE REQUIREMENTS OF MIL-P-ESTSE.                                                                                                                                                                                                                                                                                                                                                                                                                            | CARCH) WAS REQUESTED TO INSTALL BETTER QUALITY CONTROL OF RINGS RECEIVED HERT THE REQUIREMENTS OF MIL-P-25732.  | TER QUALIT                                         | r contro.<br>L-P-25731                    |                                         | ELECTINA                                                             | 3               |               |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | MTDRAULIC-A/B<br>BODSTER                                                                                                                                     | A-89-U4-4481-F<br>BOOSTER ACTUATOR ASSEMBLY-O-RIMG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | FAR<br>27-08880-7                                                                                               | £430<br>631008                                     | PACTORY                                   | 20                                      | YES MYDRAULIC RESE<br>NO ARCH                                        | RESE            |               |  |

FAILURC MOGELEAR EXTERNAL, BOODIER BERVOCTLINDER (BYN EDB-360E) LEAKED HYDRAULIC FLUIG THROUGH THE PIBTON ROD UMILL E PRESURE ANNUED PEINTEN FROM ORINGS TOD MA E PRESSURE ANNUED PEINTEN FOOD AND 3000 PRIGICIPERATING PRESSURE 3000 PRIGI. THE PAILURE RESULTED FROM ORINGS TOD MA ND TO GIVE A GOOD DYNAHIC HYDRAULIC SEAL, BPECIFICATION REQUIRES A HINIMUM HYDDNESS CP. BHORE-A 85, WITH NO MAXIMUM W ALUE BITPULATED. IT WAS FOUND THAT THE BEAL EFFICIENCY WAS POOR AT HARDNESSES ABOVE B-ORE A-TR. O-RINGS USED ARE PUR

104700-1

## SENER - GYNAMICS CONVAIR DIVISION

18 104 1056

# DIFFICULTIES REVIEW-HYDRAULIC STRIEM-AIRBORNE

|   | 8787EH<br>848-8181EH                                                               | TESTARFPORT NUMBER<br>FAILED COMPONENT NAME                                                                                                                                                                                                                                                                                                                    | DIF DATA SOURCE<br>PART NUMBER                                             | WENICLE<br>DATE DIF    | 11 ME 019               | 2 5<br>0         | VEHICLE BITE PRI VENDOR HANG               |          |
|---|------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|------------------------|-------------------------|------------------|--------------------------------------------|----------|
|   | CHASED WITH A SHORE-A DUROMETER VALUE OF<br>ENT PER MIL-P-23732.                   |                                                                                                                                                                                                                                                                                                                                                                | 66 PLUS OF NINUS 3. THE NINIMUM ALLOMBLE PERCENTAGE ELOMEATION IS 160 PERC | - PERCEN               | 174E CLO                | T T              | ON 18 166 PERC                             | •        |
|   | CORRECTIVE ACTION-THE VE                                                           | CORRECTIVE ACTION-THE VENDOR (HYDRAULIC RESEARCH) WAS REQUESTED TO INSTALL BETTER QUALITY CONTROL IN SELECTING O-RI<br>MS: AND GDC RECEIVING MAS HOTIFIED THAT ALL O-RINGS RECEIVED HEET THE REQUIREMENTS OF HIL-P-ESTSE.                                                                                                                                      | DIED TO INSTALL BETT<br>DINEET THE REQUIRED                                | ER OWLIT               | 7 CONTRO<br>L-P-E573    | = :              | BELECTING O-RI                             |          |
|   | HTDBAULIC-A/B                                                                      | A-89-04-4483-F<br>BOOSTER ACTUATOR ASSENDLY                                                                                                                                                                                                                                                                                                                    | FAR<br>27-06590-7                                                          | 2430<br>23100          | FACTORY                 | 2 8              | TES HYDRAULIC RESE<br>NO ARCH<br>104700-1  | • 603•6  |
|   | FAILURE MODE-LEAK EXTERN<br>E PRESSURE RAM-ED BETMEEN<br>DID NOT EKCEED ALLOMABLE  | FAILUME MODE-LEAK EXTERNAL, BOOSTER ACTUATOR ASSEMBLY (SAN 209-3605) LEAKED HYDRAULIC PLUID IMMOUGH PISTON ROD UNIL<br>E pressume ramked bethern 2003 and 3000 psig. (Operating Piessure 3000 psig). Pailure not companed, btatic leakage<br>Did not exceed allomber leakage specified, maximum allomed leakage is 1 drop in 25 full-stroke operating cycles). | 109-3605) LEAKED HYD<br>BAURE 3000 P816). FA<br>LEAKAGE 18 1 DROP 1        | AAULIC PLILUME NOT     | UID THRO<br>CONTIRK     | S E E            | ISTON NOD MAIL TATIC LEAKAGE TING CYCLES). |          |
|   | CORRECTIVE ACTION-THE VE                                                           | ION-THE VENDOR (HYDRAILLIC RESEARCH) WAS REQUESTED TO INSTALL BETTER GUALITY CONTROL IN ACLECTING D-RI<br>CEIVING MAS NOTIFIED THAT ALL O-RINGS RECEIVED NEET THE RESUIRDIDITIS OF MIL-P-23738.                                                                                                                                                                | BTED TO INSTALL BETT<br>D NEET THE REAUTHEDIE                              | ER BULLI               | Y CONTRC                | <u>ب</u><br>نوبہ | AELECTING D-RI                             |          |
|   | HTDRAULIC-A/B                                                                      | SSAISIO<br>HTDRAULIC PURP                                                                                                                                                                                                                                                                                                                                      | UTP-PRT<br>87-06566-1                                                      | 1001 to                | COMAYIE                 | ž 6              | VES V/CKERS<br>ND AA-80884-R-EA            | •• T0• T |
|   | FAILURE MODE-OUT OF SPEC<br>ALLOMABLE (0.6 CPH) DURI<br>AB 0.687 CPH. PART S/N RO  | FAILUME MODE-OUT OF SPECIFICATION. ENVIRONMENTAL COMBITIONS-PROOF PRESSURE TEST CARE BRAIN LEARAGE ENCEEDED MAXIMUM<br>ALLOMABLE (0.6 GPH) DURING PROOF PRESSURE TEST LEARAGE AT 4000 PSI, 32HG RPM, NAS 0.626 GPM, 4000 PSI, 3750 RPM, M<br>AS 0.637 GPM. PART S/N ROS-0374 RETERENCE PPR-4012.                                                               | -PROOF PRESSINE TEST<br>4000 PSI, 3EIG KPN,                                | CASE DR.               | 13N LEAKA<br>1 6871, 40 | ¥ 8              | CEEDED NAXIMUN<br>I, 3750 AFM, W           | ·        |
|   | CORRECTIVE ACTION-PRT TEST PROCEDUR<br>LCATION: FR 854-E-DET; BUFPLENEIT A.        | ION-PRI TEST PROCEDURE REVISED TO CORRECT LEARANG CALLOUT POR 3000 PMI GPERATIVE PRESSURE, PER SPECIF<br>-2-027, Supplement A.                                                                                                                                                                                                                                 | HASE CALLOUT POR 188                                                       | Ž.                     | #47.48                  | 3                | ME, PEA DPECIP                             |          |
|   | HYDRAULIC-A/B<br>BOOMIER                                                           | A-91-04-4428F<br>AC:UATOR-BODGTER:O-RING                                                                                                                                                                                                                                                                                                                       | FAR<br>27-06550-7                                                          | 196-0<br>616010        | FACTORY                 | 58               | YES HYDRAULIC MESE<br>NO ARCH<br>1947D0-1  | :        |
| 1 | FAILURE MODE-LEARING EXT<br>TLIMDER ASSY FAILED DUE T<br>CATION. LEARAGE WAS ATTRI | FAILUNE MODELLEAKING EXTERNAL-ACTUATOR UNB POUND LEARING HYDRAULIC PLUID FROM THE AFT END OF THE PIBION. THE BERNOC<br>TLINDER ABST FAILED DUE TO BTATIC CONDITION HYDRAULIC LEARAGE. THE BTATIC AND THE DYNAMIC LEARAGE UNB MITHIN BMEIPT<br>CATION. LEARAGE UNB ATTRIBUTED TO THE UBE OF BUBBIANDARD O-RINGS.                                                | DRALIC PLUID FROM 1<br>E. THE BTATIC AND TH<br>INDA.                       | NE AFT ED<br>E DYNAMIC | B OF THE                |                  | ON. THE BERVOC<br>WITHIN BPE:1F1           |          |
|   | CORRECTIVE ACTION-100 PE                                                           | ION-100 PEACENT INSPECTION WAS INITIATED FOR O-RIMS USED IN SERVECTLINDER ASSEMBLIES.                                                                                                                                                                                                                                                                          | O-AIMS USED IN DERV                                                        | OCYL INDEA             | ABBENDI                 | .160.            |                                            |          |

CONVAIR BIVISION

11 104 1166

| 3737EH<br>8UB-8737EH    | DIFFICULTIES REVIEW-HYDRAULIC STREEM-AIRBORNE TEST/REPORT HUMBER DIF DATA BOUNCE N                                                                                                                                                                                                                                                    | DRAULIC STREM-AIRBOR                                                   | WENTCLE                     | 21.0                 | <b>2</b> | VENDOR HANG.                                     |                |
|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|-----------------------------|----------------------|----------|--------------------------------------------------|----------------|
|                         | ETAEDTS<br>HYDRAULIC PULD                                                                                                                                                                                                                                                                                                             | UTP-PET 87-0886-1                                                      | 020000                      | 3/ <b>08</b>         | £ 8      | 620850 60/C VES VICAERS                          | •              |
| MT G T                  | FAILURE MOE-OUT OF TOLERANCE. ENVIRONMENTAL COMDITIONS-INITIAL PROOF CYCLE CASE DRAIN LEARAGE SLIGHTLY OUT OF TOLE<br>Rance. The Learage at 4000 psi has 0.00 opn (max. Alcomble, 0.00 opn). Part 8/N 301-0364 ppr-5026.                                                                                                              | HITAL PROOF CYCLE CA<br>L: 0.60 6PH). PART BA                          | ME DRAIN L                  | EARAGE S<br>PPR-50E  |          | .r 00.7 00 TOLE                                  |                |
| N TO FR 654-2-069.      | TO FR 854-2-069.                                                                                                                                                                                                                                                                                                                      | AT CPERATING PRESOUR                                                   | <b>6</b> 4 000 <b>8</b> ) 1 | 5 to                 | 200      | MESSUAE. AEFE                                    | *******        |
|                         | E7A-2013<br>Valve-bafety relief                                                                                                                                                                                                                                                                                                       | UTP-PET<br>R7-00561-1                                                  | <b>63092</b> 7              | CONVAIR              | 20       | YES VINSON HFG.<br>NO A-80282                    | 1035           |
| LEAK. BU                | FAILURE MOE-LEAK. DURING PET HIGH TENP (PLUS RTS DEGREES P) TEST, INTERNAL LEARAGE WAS EVIDENT DURING TWO RUNS. LE<br>Arage was 4.0 and 3.0 cc/min. (Allowble Scc/min.). Test Spec;nem 302-0325.                                                                                                                                      | F) TEST, INTERNAL LE.<br>PC:Hen 302-0325.                              | aree was                    | EVIDENT              | ME SE    | Tho Runs. LE                                     |                |
| TICH-ALL                | CORRECTIVE ACTION-ALL UNITS OF LOT 15 WERE REJECTED.                                                                                                                                                                                                                                                                                  |                                                                        |                             |                      |          |                                                  |                |
|                         | 8P-8D-04-4413-F<br>F18:ON ROD-ACTUATOR-                                                                                                                                                                                                                                                                                               | FAR<br>27-06350-7                                                      | 25055<br>50984              | £                    | 20       | YES MYDRAULIC RESE SSYDDS<br>ND ARCH<br>104700-1 | <b>60 7001</b> |
| EAK EXT                 | FAILUME MOE-LEAK ENTERNAL-THE SERVOCYLINDER ACTUATOR WAS REPONTEDLY LEAKING AROUND THE PISTON ROD. LEARAGE WAS CAU<br>SED BY A WORN O-RING DANAGED BY THE SCORED PISTON ROD. THE PISTON ROD NAS SCORED BY A CHRONEPLATE PARTICLE BROKEN OF<br>F THE ACTUATOR SHAFT THAY DISLODGED ITSELF FROM THE ROUGH PLATING EDGE NEAR THE PISTON. | REPORTEDLY LEAKING AN<br>PISTON ROD WAS SCORES<br>LATING EDGE NEAR THE | CUMO THE I                  | PISTON R             | 98. E    | ARAGE WAS CAU<br>CLE BROKEN OF                   |                |
| 7104-YHE<br>P18708 /    | CORRECTIVE ACTION-THE VEHOER WAS INFORMED OF THE CAUSE OF THIS FAILURE, AND THE VEHOER INSTALLED BETTER GUALITY CON<br>TROL TO INSURE PISTON RODS ATE PROPERLY INSPECTED AND MACHINED BEFORE THEY ARE USED IN SERVOCYLINDER ACTUATOR ASSENS<br>LIES.                                                                                  | THIS FAILURE, AND THE<br>NED BEFORE THEY ANE (                         | T VEIDER 10                 | NSTALLED<br>FVOCTLIN | 25 A2    | R GUALITY CON                                    |                |
|                         | A-80-04-4424-F<br>ACTUATOR-SERVO CTLINDER ABBY.                                                                                                                                                                                                                                                                                       | 7AR<br>87-06550-8                                                      | 196019                      | Ĕ                    | NO HYDRA | MYDRAULIC RESE<br>ARCH<br>104700-0               | •              |
| 207 OF 91<br>OFIER- 861 | FAIL!ME MODE-OUT OF SPECIFICATION-AUTO FILOT CMECK PAMEL ON SILO LEVEL 3 SMOMED THE FAILUME WAS AM ENSINE DISPLACEN<br>Ent error, Telemetry recombs revealed Booster Emsine 2 was pitch mard over. Pailume was coupirmed. Failume was Found<br>In servo amplifier-dee Far-a-50-04-4410                                                | M BILD LEVEL 3 BACKER<br>PITCH MAND OVER. PAIL                         | UNE NOT CA                  | AT INC               | 4        | INE DISPLACEN                                    |                |
| I ON-MON                | COMMECTIVE ACTION-NOME-NO ACTION ON REAVO- CYLINDER ACTUATOR ABBY. MEE PAR A-80-64-4418 FOR CORRECTIVE ACTION ON SE                                                                                                                                                                                                                   | OR ABBY. BEE PAR A-BO                                                  | -04-4418                    | 'OR CORR             | ica i W  | ACTION ON SE                                     |                |

GENE, BYNAMICS CONVAIR BIVISION DIPPICULTED REVIEW-NYDRAULIC BYBYEN-AIMBORNE

7,100

11 Jun 1000

| <del></del>                                                           | •                               | <del></del>                                                                                                                                                                                                                                                                                                                                                      | ***************************************       |                                                                                                                                                                            | •                               |                                                                                                                                                                                                                                          | •                                         |                                                                                                                                                                                                                                   | <del></del> †                                                                                                                                                                                                                                                                                                                                                              |
|-----------------------------------------------------------------------|---------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| WENICLE BITE PRI WINDOR MANE.<br>BATE BIP TIME BIP OTH WINDOR PART NO | YES VICKERS<br>NO AA-60684-A-EA | TO FULL PLOW 1                                                                                                                                                                                                                                                                                                                                                   | PEACOCK<br>51310-3                            |                                                                                                                                                                            | WES PEACOCK<br>NO SISIG-B       | N O NIME ON                                                                                                                                                                                                                              | YES HYDRAULIC RESE<br>NO ARCH<br>104700-1 | OLL FROM THE BA                                                                                                                                                                                                                   | 1817 THE USE OF UNION                                                                                                                                                                                                                                                                                                                                                      |
| 1 0 E                                                                 | 2 8                             | 9 7                                                                                                                                                                                                                                                                                                                                                              |                                               |                                                                                                                                                                            | 5 8                             | F 9                                                                                                                                                                                                                                      | ž g                                       | 2 4 4 5 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5                                                                                                                                                                                           | 4                                                                                                                                                                                                                                                                                                                                                                          |
| 017E                                                                  | CONVAIR                         | 7 6 5 7 7 5 7 5 7 5 7 5 7 5 7 5 7 5 7 5                                                                                                                                                                                                                                                                                                                          | COMPLEX                                       | ATE P1810                                                                                                                                                                  | CONVAIR                         | 1088 THE F                                                                                                                                                                                                                               | FACTORY                                   | M DPECIFIC                                                                                                                                                                                                                        | CTICA TO CTLINGER                                                                                                                                                                                                                                                                                                                                                          |
| WENICLE<br>BATE BIP                                                   | 97                              | E. PLOS. E                                                                                                                                                                                                                                                                                                                                                       | 75.80<br>63.00<br>63.00                       | 2 KTENEED I                                                                                                                                                                | 014063                          | <b>EMANK</b> AG                                                                                                                                                                                                                          | 23003                                     | CAE WE'FEE                                                                                                                                                                                                                        | CONTROL A                                                                                                                                                                                                                                                                                                                                                                  |
| DIF DATA BOUNCE<br>PART NUMBER                                        | UTP-PET<br>27-06966-1           | SPECIMEN PAILED TO<br>-0364. REF. FPR BOI<br>ESPONSE TINE AT PUR                                                                                                                                                                                                                                                                                                 | FAR<br>27-06554-3                             | MAILIC SIDE OF THE                                                                                                                                                         | UTP-PRT<br>E7-06554-3           | <b>168</b> 1 нт <b>риаціс 016. 1</b><br><b>201</b> -0810.                                                                                                                                                                                | FAR<br>27-06530-7                         | THE ACTUATOR WAS PRINGE.                                                                                                                                                                                                          | OR PREVENTING USE OUTED RISED GUALITY                                                                                                                                                                                                                                                                                                                                      |
| TEST/REPORT HUMBER<br>FAILED COMPONENT HANG                           | ETAEDTS.1<br>HTDRAULIC PUMP     | PAILUME MODE-OUT OF SPECIFICATION. IMITIAL PROOF CYCLE TEST SPECIMEN FAILES TO MESULATE PROM NO PLOW TO FULL FLOW I<br>N 0.05 SECONDS. TIME RESULRED MAS 0.07 SECONDS. PART 8/N 301-0354. REF. FPM 3036.<br>COMECTIVE ACTION-SPECIFICATION CHANGED TO CLEARLY DEFINE RESPONSE TIME AT FULL FLOM. ECP7669 SUBMITTED TO CUSTOMER.<br>. FR 854-2-060. SUPPLEMENT 9. | 96-90-10-210-F<br>HYDRAULIC ACCUMAATOR,O-RINS | FAILUNE MODE-LEAK INTERNAL-LEAKED 6A3 FROM PREUMATIC TO MYDRAULIC SIDE OF THE INTERNEDIATE PISTON.<br>Corrective action-60/c replaced marstys O-Rims with am 6227 O-RIMSS. | 69A1907.1<br>ACCUMULATOR-O-8186 | FAILURE MODE-TOLERANCE. DURING POST TENFERATURE VIBRATION TEST HYDRAULIC OIL LEAKAGE ACNOSS THE PISTON O RING UNS M<br>Easured as 18 ML/HR. Resulrement is 8 ML. Maliman. Med. 8/70 803-0810.<br>Conrective action-mome. Test continued. | A-99-04-4429-F<br>ACTUATOR, O-RIMS        | PAILUNE MODE-LEAK EXTERNAL-DUMING PILL-AND-BLEED PROCEDURE THE ACTUATOR WAS POUND LEARING MYDRAULIC OIL PROM THE BM<br>Apt beal. Learage was caused by mand inclabite O-RIMGO. MONEWER LEARAGE RATED MEME METNIN DMECIPICAIATION. | CORRECTIVE ACTION-60/C COTAINED VENDER CORRECTIVE ACTION, FOR PREVENTING UNE OF THE BUBSTANDARD O-RINSS SIFORE THIS RECORD FALLINE, EFFECTIVE JULY 18, 1862 THE VENDER INSTITUTED RISID QUALITY CONTROL ACTION TO PROMISIT THE UNE OF BURNDARD O-RINGS, MERO-CYLINDER ACTUATOR WAS MANUFACTURED IN JUNE 1862. ALBO BERNO CYLINDER ACTUATOR CAN NOT B CONSIDERED A FAILURE. |
| M31614                                                                | MTDRAULIC-A/B<br>BOOSTER        | FAILURE MODE-OUT OF BPECIFIC M 0.05 BECOLOS. TIME REBUIRED CORRECTIVE ACTION-SPECIFICAT FR 854-E-080. BUPPLEMENT 9.                                                                                                                                                                                                                                              | HYDRAULIC-A/B<br>BOOSTER                      | FAILURE MODE-LEAR INTERNA CORRECTIVE ACTION-6D/C RE                                                                                                                        | HYDEAUL IC-A.B.                 | FAILURE MODE-TOLERANCE, DURING POST TEN<br>EASURED AS 18 ML/HR. REQUIREMENT IS 8 ML<br>CORRECTIVE ACTION-NOME, TEST CONTIMED.                                                                                                            | HTDRAULIC-A/B<br>BOOSTER                  | PATLUME MODE-LEAR EXTERNA<br>AFT BEAL. LEARAGE MAB CAUB                                                                                                                                                                           | CORRECTIVE ACTION-60/C OB<br>REPORTED FAILURE, EFFECTI<br>BURSTANDARD O-RINGS, BERN<br>E CONSIDERED A FAILURE,                                                                                                                                                                                                                                                             |

GENERAL DYNAHICS CONVAIR DIVISION

15 JUN 1966

| HYDRAULIC-3/8                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | _                                              |             |            |                                 | 2           |
|------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|-------------|------------|---------------------------------|-------------|
| B0087ER                                                                | SOFISII<br>Valve, Mawmal Operated                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | UTP-PRT<br>27-00568-3                          | 13000       | CONVAIR    | TES STERER ENSE AND DO DEFE     | •           |
| FAILURE MODE-CUT OF 1                                                  | FAILURE MODE-CUT OF SPECIFICATION. S/M SIE VALVE LEAKED INTERNALLY 180 ML/MIN DURING PRT MIGH TEMP TEST AKIS III.<br>100 Psig at cutlet, esso at inlet. During vib. Smeep at 800 Degrees F at 100 CPS.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | INTERMALLY 150 ML/HSP<br>DO DEGREES F AT 100 C | DURING PRI  | miter TEM  | TEST ANIS 111.                  | •           |
| CORRECTIVE ACTION-HYE<br>AULIC FLUID IMB MADE I                        | ON-HYDRAULIC FLUID CHECKED 10 DATS AFTER TEST AND FOUND TO DE CONTAMINATED. A RETEST WITH CLEAN HYDR<br>Made with zero learage measured. Ref. Frssa-2-014.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | TEST AND FOUND TO BE<br>54-E-014.              | CONTANINATE | 19. A AETE | T WE'SH CLEAN HT                |             |
| HTDRAULIC-A/B                                                          | F3-4CO-04-197                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | COMPOSITE-J FACT                               | 5.5         | 23         | YES                             | -           |
| BOOSTER<br>FATURE MODE-OUT OF                                          | DOSTER ACTUATOR ACTUATOR PARTIES EMERGES AMERICAN MANAGEMENT AT ACCOUNT AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION ACTUATION AND ACTUATION ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTUATION AND ACTU |                                                | 630655      | 140        | 9                               |             |
| TO WALL BY OVERSHOOT                                                   | TO MALE BE OVERSHOOT, SO PET 18M. BE OVERSHOOT, 4 PET 18M. 0.50 SECOND REBUIRD FOR EMBINES TO RECOVER TO THE MALE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | M. D.SO SECOND REGULA                          |             | MES TO REC | OVER TO THE NULL                |             |
| SYSTEM EFFECT-ERRATIO                                                  | THE STREET FRANCIS CHERATICM. BOCATER ENGINES CYERBYOT MEL. IN YAM/ROLL AT BECO. WENING FFFETT-MAN.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | T MAL IN TANFOLL AT                            |             |            |                                 |             |
| CORRECTIVE ACTION-INVESTIGATE. REPLACED                                | EBIIGATE. REPLACED BERNO VALVE.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                |             |            |                                 |             |
| MYDRAULIC-A/B<br>BOOSTER                                               | SPEIDI<br>VALVE, MANUAL OPERATED                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | UTP-PRT<br>27-06568-3                          | *19063      | CONVAIN    | YES STEACH ENGE AND D WEG 12040 | 8 22 8      |
| FAILURE MODE-OUT OF                                                    | FAILUME MODE-OUT OF TOLERANCE. 8/M 912 REGULATED PLOW SLOMALY RESPONSE TING 0.5 SEC. SPECIFICATION LIMIT 0.1 SCC.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | DALY RESPONSE TINE O.                          | 9 BEC. SPEC | 1 FICATION | LINET 0.1 BCC.                  |             |
| CORRECTIVE ACTION-NOME.                                                | ان                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                |             |            |                                 | ····        |
| HYDRAULIC-A/B<br>BOOSTER                                               | 00A1000-1<br>Valve-dafety religy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | UIP-PKI<br>R7-06570-1                          | 219053      | CONVAIR    | VES VINSON NF6.<br>NO A-80188-1 | •           |
| FAILURE MODE-OUT OF SPECIFICATION. ), TEST SPECIMEN ROS-DOSS. REFER TO | FAILURE MODE-OUT OF SPECIFICATION. DURING PRT VIBRATION TEST: INTERNAL LEARAGE WAS GOOD CC/MIN.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | test, internal leara                           | 6 th 600    | CC/NIN. (( | (aPEC. 18 1£CC/MIN.             |             |
| CORRECTIVE ACTION-WINDR                                                | IOR PAILUME, WITH NO BIGNIFICANCE ON PLIGHT, NO ACTION REQUIRED.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | P.IGHT, NO ACTION M                            | evings.     |            |                                 | <del></del> |
| HYDRAULIC-A/B<br>BOOSTER                                               | A-99-G4-4398-F<br>ACTUATOR-9008TER/9ERWO VALVE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | FAR<br>27-06550-7                              | 1630        | FACTORY    | WES HYDRAULIC RESE              | 4           |

GENERAL BYNAMICS CONVAIR BIVISION

13 JUN 1966

CONTRACT OF THE CO.

| 808-878TEN                                                           | TEST/REPORT NUMBER PAILED COMPONENT NAME                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | DIF DATA BOUNCE  PART HUMBER                                                                                                                                                                                                            |                                                  | WAICLE BIF THE BIF OTH VENDOR PART NO                                      | OTH MENDO                          | ENDOR PART NO                      |              |
|----------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------|------------------------------------|------------------------------------|--------------|
| CORRECTIVE ACTION-W<br>LAPPERS OF PROPER STE<br>PPERS.               | HYENDOR WAS INFORMED OF FAILURE AND INCREASED GUALITY CONTROL MEASURES TO INSURE THAT SERVOVALVE F<br>Stremstm are used in servocylinder assemblies. Vendor imitiated additional tests on servovalve fla                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | OF FAILURE AND INCREASED BUALITY CONTROL<br>SERVOCYLINDER ABBENGLIES. VENDOR INITIATI                                                                                                                                                   | OL MEABURES<br>ATED ADOLTIC                      | MEABURES TO INSURE THAT BERVOYALVE<br>IS ADDITIONAL TESTS ON BERVOYALVE FI | THAT BER<br>ON BEAVO               | MOVALWE FLA                        | :            |
| HYDRAUCIC-A/B<br>BODSTER                                             | A-99-10-208F<br>PACUATTY PRESSURE SASE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | FAR<br>87-06962-3                                                                                                                                                                                                                       | 49000                                            | 3 ×3                                                                       | ND ROCHESTER<br>ND 8903-719-1      | 15. 446 <b>C</b>                   | •            |
| FAILURE MODE-OUT OF<br>ABLE ERROR BETWEEN RA                         | OF TOLERANCE- EASE REPORTED OUT OF CALIBRATION DUE TO AM OUTHODED STANDARD PLUS OR NIMUS PSI ALLOW<br>I RANGES O TO 3000 PSI.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | CALIBRATION DUE TO AM OU                                                                                                                                                                                                                | THOOED 61446                                     | 40 P. UB                                                                   | N M                                | P81 ALLON                          |              |
| CORRECTIVE ACTION-NA-                                                | CORRECTIVE ACTION-NO FAILURE-40/C REVISED CALIBRATION PROCEDURE TO CONFORM TO REQUIREDENTS OF 60/C SPECIFICATION RY<br>-04508 REVISION-A-ANEXEMENT ONE AND TWO: EFFECTIVE 450988.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | ON PROCEDURE TO CONFORM T<br>MORES.                                                                                                                                                                                                     | O REGUIRDED                                      | 9 6                                                                        | : BPECIFI                          | CATION 27                          | <del></del>  |
| HYDRAUE.IC-A/B<br>BOOSTER                                            | A-99-10-207F<br>PAGU-11C PRESURE GAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | FAR<br>27-08542-3                                                                                                                                                                                                                       | 10001                                            | 60/C LAB YES                                                               | YES ROCHESTER<br>NO 8801-719-1     | 17EK CACE<br>719-1                 | •            |
| FAILURE MODE-OUT OF<br>6 PAR EMOUGH BETOND 1<br>CORRECTIVE ACTION-66 | FAILURE WODE-OUT OF SPECIFICATION- GAGE REPORTED OUT OF CALIBRATION DUE TO BOURDON TUBE-POINTER CONECTION EXTENDING 6 FAR EMUCH BETOND THE BOURDON TUBE BLEVE TO CAUME IT TO RUB AGAINST THE COVER 64.886.  CORRECTIVE ACTION-GOLC TOOK BURLITY CONTROL CORRECTIVE ACTION BY INFORMING ALL PERSONNEL CONCERNED ABOUT THE CORRECTIVE ACTION-GOLC TOOK BURLITY CONTROL CORRECTIVE ACTION-GOLC TOOK BURLITY CONTROL CORRECTIVE ACTION-GOLC TOOK BURLITY CONTROL CORRECTIVE ACTION-GOLC TOOK BURLITY CONTROL CORRECTIVE ACTION-GOLC TOOK BURLITY CONTROL CORRECTIVE ACTION-GOLC TOOK BURLITY CONTROL TO THE CONTROL TO THE CONTROL TO THE CONTROL TO THE CONTROL TO THE CONTROL TO THE CONTROL TO THE CONTROL TO THE CONTROL TO THE CONTROL TO THE CONTROL TO THE CONTROL TO THE CONTROL TO THE CONTROL TO THE CONTROL TO THE CONTROL TO THE CONTROL TO THE CONTROL TO THE CONTROL TO THE CONTROL TO THE CONTROL TO THE CONTROL TO THE CONTROL TO THE CONTROL TO THE CONTROL TO THE CONTROL TO THE CONTROL TO THE CONTROL TO THE CONTROL TO THE CONTROL TO THE CONTROL TO THE CONTROL TO THE CONTROL TO THE CONTROL TO THE CONTROL TO THE CONTROL TO THE CONTROL TO THE CONTROL TO THE CONTROL TO THE CONTROL TO THE CONTROL TO THE CONTROL TO THE CONTROL TO THE CONTROL TO THE CONTROL TO THE CONTROL TO THE CONTROL TO THE CONTROL TO THE CONTROL TO THE CONTROL TO THE CONTROL TO THE CONTROL TO THE CONTROL TO THE CONTROL TO THE CONTROL TO THE CONTROL TO THE CONTROL TO THE CONTROL TO THE CONTROL TO THE CONTROL TO THE CONTROL TO THE CONTROL TO THE CONTROL TO THE CONTROL TO THE CONTROL TO THE CONTROL TO THE CONTROL TO THE CONTROL TO THE CONTROL TO THE CONTROL TO THE CONTROL TO THE CONTROL TO THE CONTROL TO THE CONTROL TO THE CONTROL TO THE CONTROL TO THE CONTROL TO THE CONTROL TO THE CONTROL TO THE CONTROL TO THE CONTROL TO THE CONTROL TO THE CONTROL TO THE CONTROL TO THE CONTROL TO THE CONTROL THE CONTROL TO THE CONTROL TO THE CONTROL TO THE CONTROL TO THE CONTROL TO THE CONTROL TO THE CONTROL TO THE CONTROL TO THE CONTROL TO THE CONTROL TO THE CONTROL TO THE CONTROL TO THE CONTROL TO | IT TO RUS AGAINST THE COVER GLASS.  IT TO RUS AGAINST THE COVER GLASS.  INT ACTION BY INTORNING ALL PERSONEL CONCERNED ABOUT THE CORRECT CONCERNED ABOUT THE CORRECT CONCERNED ABOUT THE CORRECT CONCERNED ABOUT THE CORRECT CONCERNED. | OURDON TUBE.<br>VER BLABB.<br>LL PERROPEEL       | POINTER CO                                                                 | 38ECT108                           | EXTENDIN                           |              |
| HYDRAULIC-A/B                                                        | 20-99-10-201-F<br>PRESSURE RELIEF VALVE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | FAR<br>E7-06561-1                                                                                                                                                                                                                       | <b>28</b> 50 50 50 50 50 50 50 50 50 50 50 50 50 | PACTORY                                                                    | YES VINSON<br>NO ABORBE            |                                    | 1            |
| PALVE IN THE GROUND                                                  | FAILUME MODE-FAILS TO OPERATE AT PRESCRIBED TIME- VALVE MOULD HOT FLOW THE REQUINED FULL FLOW OF 83 GPM UNTIL AELIE<br>F valve in the ground support hydrallic pupping unit began to actuate.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | ALWE NOULD HOT FLOW THE R<br>BESAN TO ACTUATE.                                                                                                                                                                                          | COULAD PAL                                       | 8                                                                          | 5<br>5<br>8                        | 71. AGLIG                          |              |
| CORRECTIVE ACTION-FL                                                 | -FAILURE NOT CONFIDED-CONVAIR REPLACED                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | LACED VINSON VALVES METH PANTER MALVES.                                                                                                                                                                                                 | PANTER WALW                                      | •                                                                          |                                    |                                    | <del>,</del> |
| HYDRAULIC-A/B<br>BODSTER                                             | 8P-99-04-4364-F<br>ACTUATOR                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | FAR<br>87-00550-7                                                                                                                                                                                                                       | 2240<br>630716                                   | PACTORY                                                                    | NO NYDRAULI<br>NO ARCH<br>104700-1 | HYDRAULIC RESE<br>AACH<br>104700-1 |              |
| FAILURE MODE-OUT OF<br>O CHARACTERIBTICS OF<br>IFIER.                | OF TOLERANCE. ACTUATOR ASSENDET MAD OUT OF TOLERANCE MALL DURING CHECKOUT. PAILURE CONFIRMED DUE T<br>OF AIS BERVOANPLIFIER. FAILURE CAUGED BY FACTORY TEST EQUIPMENT INCOMPATIBILITY WITH AIS BERVOANPL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | D OUT OF TOLERANCE MALL D<br>MED BY FACTORY TEST EQUIP                                                                                                                                                                                  | URING CHECK!                                     | MT. PAILW                                                                  | AT COMPIN                          | HED DUE T<br>BER YOUND.            |              |

GENERAL DYNAMICS CONVAIR BIVISION

10 1981

|   | 10 1 MA 1000                                                                      | DIFFICULTIES REVIEW-HYDRAULIC SYSTEM-AIRBORNE                                                                                                                                                                                                                                                                    | AULIC STSTEM-AIRBOR                                   | ¥                                    |                      |                            |                                       |       |
|---|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|--------------------------------------|----------------------|----------------------------|---------------------------------------|-------|
|   | 8787E<br>81 <b>6</b> -8787EH                                                      | PAILED COMPONENT NAME                                                                                                                                                                                                                                                                                            | DIF DATA BOUNCE<br>PART NUMBER                        | VEHICLE SITE<br>DATE DIF TIME DIF    | 11 THE DIF           |                            | PRI VENDOR NAME<br>OTH VENDOR PART NO |       |
|   | CORRECTIVE ACTION-6D/C DLF/FERS.                                                  | CORECTIVE ACTION-60/C DESIGNED HEW FACTORY TEST EQUIPMENT CAPABLE                                                                                                                                                                                                                                                | 8                                                     | ADEQUATELY CHECKING BOTH AIG AND 10C | 6 BOTH A             | 1 2                        | 10C BERVOARP                          | ****  |
|   | HYDRAULIC-A/B<br>BOOSTER                                                          | 8P-A9-10-E02-F<br>TUBE ASSENDLY                                                                                                                                                                                                                                                                                  | FAR<br>E7-65007-9                                     | 2000<br>430710                       | FACTORY              | ã ô                        | YES CONVAIR .                         | :     |
|   | FAILURE MODE-STRUCTURAL                                                           | AUCTUMAL FAILUME OF TUBING BLEEVE CAUGING MYDMAULIC FLUID LOBG.                                                                                                                                                                                                                                                  | DRAULIC PLUID LOSS.                                   |                                      |                      |                            |                                       |       |
|   | CORRECTIVE ACTION-FAILUR                                                          | CORRECTIVE ACTION-FAILURES WILL BE MONITORED AND CORRECTIVE ACTION INITIATED BHOULD OCCURRENCE OF THIS MODE OF PAIL<br>RE INCREASE.                                                                                                                                                                              | ACTION INITIATED 8                                    | HOULD OCCU                           | RRENCE O             | <b>1 1 1 1 1 1 1 1 1 1</b> | HODE OF PAIL                          |       |
|   | HTDRAULIC-A/B<br>BOOSTER                                                          | 27C-2760-3<br>VALVE-BAFETV RELIEF                                                                                                                                                                                                                                                                                | UTP-PET<br>27-00561-1                                 | 630711                               | CONVA I R            | 20                         | BENBON<br>9050                        |       |
|   | FAILURE MODE-OUT-OF-TOLE<br>ST. DURING THIS TINE, AT<br>REASED 0.3 GPN ABOVE THE  | FAILURE HOE-OUT-OF-TOLERANCE DURING PET LIFE TEST. HIGH PREQUENCY HOISE HAS ENITTED DURING PORTIONS OF THE LIFE TE<br>ST. DURING THIS TINE, AT RATED FLOM, THE INLET PRESSURE DROPPED TO 3745 PBIG (3760 PBIG HIN SPEC.) AND FLOM RATE INC<br>REASED 0.3 GPH ABOVE THE MAXIMAN OF 25 GPM. TEST SPECINEN 305-410. | EQUENCY NOISE NAS E<br>PED TO 3745 PBIG (3<br>15-410. | MUTTE PAR<br>NO PSIGN                | ING PORT<br>IN SPEC. | ON ON                      | F THE LIPE TE<br>FLOW RATE INC        |       |
|   | CORRECTIVE ACTION-ALL U                                                           | CORRECTIVE ACTION-ALL UNITS OF LOT 13 WENE NEJECTED.                                                                                                                                                                                                                                                             |                                                       |                                      |                      |                            |                                       |       |
|   | HYDRAULIC-A/B<br>BOOSTER                                                          | SP-88-10-187F<br>HYDRAULIC ACCUMALATOR, O-RING                                                                                                                                                                                                                                                                   | FAR<br>27-06554-3                                     | 1990                                 | FACTORY              | 28                         | PEACOCK<br>\$1319-3                   |       |
|   | FAILURE MODE-LEAK INTER!                                                          | FAILURE MODE-LEAK INTERNAL-LEAKED GAS FROM PREUMATIC TO MYDRAULIC BIDE OF THE INTERNEDIATE PIATON.                                                                                                                                                                                                               | MAULIC SIDE OF THE                                    | INTCANEDIA                           | TE P1870             | ż                          |                                       |       |
|   | CORECTIVE ACTION-PAILUR<br>ESSURE CHARGE ACCUMULATOR<br>MADE CONVAIR COULD NOT 11 | CORRECTIVE ACTION-FAILURE NOT CONFIRMED-CONVAIR INITIATED AN ENGINEERING CHANKE PROFODAL TO REPLACE THE TWD HIGH PR<br>ESSURE CHARGE ACCUMULATORS MITH A SIMPLE LOWER PRESSURE CHARGE ACCUMULATOR. BECAUSE NO CUSTOMER RESUEST FOR ECP WAS<br>MADE CONVAIR COULD NOT TAKE REMEDIAL DESIGN ACTION.                | H ENGINEERING CHANG<br>ISE ACCUMALATOR, BEC           | E PROPOBAL<br>AUSE NO CU             | TO REPL              | ACE TO                     | E TUD HIGH PR                         |       |
|   | HYDRAULIC-A/B<br>BOOSTER                                                          | A-80-10-200-F<br>BCOSTER HYDRAULIC TANK                                                                                                                                                                                                                                                                          | FAR<br>E7-06551-3                                     | 34<br>0.0071.0                       | 80 TP2               | 5 9                        | YES BENGON MF6.<br>NO BBAS            | ***** |
|   | FAILURE MODE-LEAK ENTERN                                                          | K EXTERNAL-LEAR DUE TO PAILURE OF MICKEL PLATE TO ADMERE TO THE ALUMINUM CYLINDER.                                                                                                                                                                                                                               | ATE TO ADMERE TO TH                                   | r atumen                             | CYLINDE              | ż                          |                                       |       |
| 3 |                                                                                   | COMMECTIVE ACTION-BENDOM MTO STATED PARTO WILL BE INDPECTED FOR BLISTERS APTER PLATING- IMPROVED QUALITY CONTROL<br>Plating process- Plating Bounce Changes.                                                                                                                                                     | FOR BLISTERS AFTER                                    | PLATIN.                              | Immorto              | 3                          | 17 CONTROL W                          |       |

GENERAL BYNAMICS CONVAIR BIVIBION

ì

11 JUN 1866

CONVAIR BIVIDION

|                   | DIFFICULTIES REVIEW-HYDRAULIC STSTEM-AIRBORNE                                                                                                                                                                                                                | RAULIC STSTEM-AIRSON                         | *                         |           |                  |                                                                         | _              |
|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|---------------------------|-----------|------------------|-------------------------------------------------------------------------|----------------|
|                   | TEST/REPORT NUMBER<br>FAILED COMPONENT NAME                                                                                                                                                                                                                  | DIF DATA BOUNCE<br>PART NUMBER               | WENTCLE<br>DATE DIF       | 111E 91F  | ī š              | VEHICLE BITE PRI VENDOR PART NO<br>BATE BIP TINE BIP OTH VENDOR PART NO | <del></del> -, |
| 15 M              | \$417CH-PRE35URE                                                                                                                                                                                                                                             | COMPOS   TE-FACTORY<br>87-44808-624          | 71.0E                     |           | 88               |                                                                         | •              |
| 5 8<br>± 8        | FAILURE MODE-FAILED DUMING OPERATION, PRESSURE BUITCH OPERATION POR BOTH BOOBTER AND BUBTAINER BYSTEMS COMED MOY BE<br>Deternined, no deflection on Hidnestern Recorder ND.1 Chambels 34 and 35 and Evident, caused by defective wiring in<br>Afe.           | ATION FOR BOTH BOOST<br>HELS 14 AND 35 WAS E | ER AND BAR<br>VIDENT. C.  | VAINEA .  | 7 8 TEN<br>DEFEC | S COME NOT BE<br>TIVE WIRING IN                                         |                |
| 200               | BYBIEN EFFECT-OFERATION DOESNY BTART.                                                                                                                                                                                                                        |                                              |                           |           |                  |                                                                         |                |
| r ří-             | MEMICLE EFFECT-COMPOSITE RE-SCHEDLED. POST-COMPOSITE TESTINS REQUIRED.                                                                                                                                                                                       | IN REQUIRED.                                 |                           |           |                  |                                                                         |                |
| 8                 | CORRECTIVE ACTION-REWIRED ENABLE BUITCHES IN TEST COUPMENT.                                                                                                                                                                                                  | т.                                           |                           |           |                  |                                                                         |                |
| \$ 5              | 899-04-4389-F<br>ACTUATOR ASST.                                                                                                                                                                                                                              | FAR<br>87-06550-7                            | 8430<br>63070\$           | FACTORY   | 58               | VES HYDRAULIC RESE<br>NO ARCH<br>104700-1                               |                |
| ERATI<br>Exte     | PAILURE MOE-ERRATIC OPERATION. BOOGTER R PITCH ACTUATOR ASSY OPERATED ERRATICALLY DURING PRESUDICY RESPONSE TEST.<br>Failure not cofirmed in extensive testing and disabidually of actuator. Rejection was attributed to an unknown trams<br>Tent compition. | 887 OPERATED ENRATIC<br>OF ACTUATOR. NEJECTI | ALLY BURIS<br>On tans ATI | S PRESUE  | 7 0<br>4 4       | ESPONSE TEST.                                                           |                |
| TIGAT<br>PROCE    | CORRECTIVE ACTION-INVESTIGATION OF ACTUATOR EARATIC OPERATION IS CONTINUING. ALL PAILUMES WILL BE CAREFULT INVESTI<br>Lated to see if checkout procedures are a contributory cause of pailure.                                                               | IOI IS CONTINUIMS. A<br>E OF FAILURE.        | L PAILUM                  | 19 MILE 8 | 3                | FULLY INVESTI                                                           |                |
| #7C               | ETCETBG-3<br>Valve-Bapetv Relief                                                                                                                                                                                                                             | UTP-PET<br>R7-06341-1                        | 229089                    | CONVAIR   | ž š              | YES BENEGON<br>NO BOSO                                                  | <b>2</b>       |
| ERANCE.<br>INCREA | FAILUKE HODE-OUT-CF-TOLERANCE. DURING PET TEST K-AKIS VISRATION, RESEAT PRESSUME NAS 1229 PSIG NATH 7.1 CC/MIM INTE<br>Rhal Learage and Learage Increased to 44 CC/MIM (SPEC, MAK IS 2 CC/MIN.). Test specimem BOS-DAIG.                                     | ATION, RESEAT PRESSU<br>18 B CC/HIN.), TEST  | ME INS SEE                | 19 P816 W | # .              | .s CC/NIN INTE                                                          |                |
| MIT& Q            | CORRECTIVE ACTION-ALL UNITS OF LOTS IS WERE REJECTED.                                                                                                                                                                                                        |                                              |                           |           |                  |                                                                         |                |
| PTCE<br>VALV      | ETCET60-5<br>Valve-Bapety Aeliep                                                                                                                                                                                                                             | UTP-PET<br>87-00561-1                        | £190£9                    | CONVAIR   | şg               | YES BENGON<br>NO 9050                                                   |                |
|                   |                                                                                                                                                                                                                                                              |                                              |                           |           |                  |                                                                         |                |

FAILURE MODE-OUT-OF-TOLERANCE DURING PET TEST. RESEAT PRESSURE LOW (2875 VS SPECIFICATION 3150 PLUS 100 OR -0 P316)
DURING INITIAL PROOF CYCLE-DURING LOW TEMPERATURE TEST (\*30 DEGREES F) RESEAT PRESSURE MAS HIGH (3270 VS SPECIFICAT
10M 3150 PLUS 100 P316). DURING MIGH TEMPERATURE TEST (PLUS ETS DEGREES F) RESEAT PRESSURE RANGED FROM 2480 TO 3045
P\$16, ALSO EXCESSIVE LEARAGE WAS NOTED (SCC/MIN.) (SPECIFICATION NAXIMAN 18 O CC/MIN.) TEST SPECIMEN NUMBER 308-0410

18 1UN 1986

|         | DIVIBION |
|---------|----------|
| THE MAL | CONVAIR  |
|         |          |

|                                                              | DIFFICULTIES REVIEW-HYDRAWLIC SYSTEM-AIRBORNE                                                                                                                                                                                                   | AULIC STOTEN-AIRBOR                          | <b>¥</b>                 |                  |                |                                                                      |            |
|--------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|--------------------------|------------------|----------------|----------------------------------------------------------------------|------------|
| 8181EN<br>848-878TEN                                         | TEST/REPORT NUMBER<br>FAILED COMPONENT NAME                                                                                                                                                                                                     | DIF DATA SOURCE<br>PART NUMBER               | VEHICLE<br>DATE DIF      | 817E<br>TIME BIF | - E            | VEHICLE BITE PRI VENDOR NAME<br>DATE DIF TIME DIF OTH VENDOR PART NO |            |
| CORRECTIVE ACTION-ALL UN                                     | UNITS OF LOT NUMBER 13 MERE REJECTED.                                                                                                                                                                                                           |                                              |                          |                  |                |                                                                      | • 700      |
| HYDRAULIC-A/B<br>BOOSTER                                     | 60/463-0398/LE-401-00-139<br>RISE-OFF DISCOMECT                                                                                                                                                                                                 | FLIGHT<br>87-06550-3                         | 1300                     | **               | 88             | PEACOCK<br>91300-3                                                   | *****      |
| FAILURE MODE-STRUCTURAL.<br>EXPOSURE TO RADIATION ME<br>OFF. | FAILUME MODE-STRUCTURAL, BOOSTER BYBIEN HIGH-PREBBURE RIBE-OFF DIBCOMECT RUPTURED AT 88.4 MECOMDS DUE TO EXCESSIVE<br>Exposume to radiation meating. Excessive exposume resulted from failume of radiation batedn which fell off at lift<br>FF. | OFF DISCOMECT RUPT<br>FROM FAILURE OF RAD    | URED AT SE<br>IATION BHI | ELDN WHI         | \$ 5<br>5<br>5 | TO EXCESSIVE<br>L OFF AT LIFT                                        | ·········· |
| SYSTEM EFFECT-DEPLETION<br>DISCONNECT. CONSEQUENTLY,         | SYSTEM EFFECT-DEPLETION OF LIQUID SUPPLY. BOOSTER SYSTEM HYDRAULIC PLUID SUPPLY WAS DEPLETED AS RESULT OF RUPTURED DISCONNECT. CONSEQUENTLY, HYDRAULIC CONTROL PRESSURE TO BOOSTER ENGINES WAS LOST.                                            | DRAULIC PLUID BUPPL<br>ITER ENGINES IAND LOD | r was DEP.<br>T.         | £750 A&          | EDIA. T        | OF RUPTURED                                                          |            |
| VEHICLE EFFECT-LOSS OF VEHICLE STA                           | VEHICLE EFFECT-LOSS OF VEHICLE STABILITY. LOSS OF HYDRAULIC CONTROL PRESSURE REPAITED IN LOSS OF VEHICLE STABILITY ND SUBSEQUENT VEHICLE DESTRUCTION.                                                                                           | CONTROL PRESSURE A                           | EVA.TED 18               | 1088 04          | WENTC          | LE 87481LITY                                                         |            |
| CORECTIVE ACTION-RISE-OFF DISCONNECT WA                      | CORRECTIVE ACTION-RISE-OFF DISCONECT WAS REDESIGNED AND CHECK VALVES WENE INSTALLED IN THE BOOSTER AND SUSTAINER M<br>EM-PRESSURE DISCOMMENT LINES. CIC 07414.                                                                                  | ECK VALVES VERE 3100                         | TALLED IN                | THE 8008         | 5              | D SUSTAINER N                                                        |            |
| HTDRAULIC-A/B<br>BOOSTER                                     | A-99-10-195-F<br>HYDRAULIC PUPP, GASKET                                                                                                                                                                                                         | FAR<br>27-08588-1                            | 119000                   | FACTORY          | 7 C V          | VES VICKERS<br>NO AA-60854-R-2A                                      | :          |
| FAILURE MODE-LEAK EXTERN                                     | FAILUME MODE-LEAK EXTERNAL-HYDRAULIC PLUID LEAK PAST THE END PLATE BEAL.                                                                                                                                                                        | D PLATE BEAL.                                |                          |                  |                |                                                                      |            |
| CORRECTIVE ACTION-VICKER                                     | CORRECTIVE ACTION-VICKERS QUALITY CONTROL INDPECTION PROCEDURES REVISED TO PRECLUDE BEFICEDURES ENCOUNTERED.                                                                                                                                    | IURES REVISED TO PRE                         | CLUBE BEF!               | CIDICIES         | CHCON          | HTEAED.                                                              |            |
| HYDRAU (C-A/B<br>BOOSTLR                                     | 8P-90-10-185F<br>TUBE CLAMP                                                                                                                                                                                                                     | FAR<br>NG-21910 NG                           | 630604                   |                  | £ 8            |                                                                      | 1          |
| FAILURE MODE-STRUCTURAL-<br>Assembly.                        | FAILURE MODE-STRUCTURAL-VISUAL IMSPECTION REVEALED THAT THE CLAMP WAS BROKEN. THIS CLAMP SUPPORTED 27-65007-65 TUBE<br>Assembly.                                                                                                                | CLAMP WAS BROKEN.                            | THIS CLANS               | . surrout        | <b>.</b><br>9  | 85007-85 TUBE                                                        |            |
| CORRECTIVE ACTION-NOME-1                                     | CORRECTIVE ACTION-NOWE-THIS PAILURE IS CLASSIFIED AS A RANDOM TYPE.                                                                                                                                                                             | ON TYPE.                                     |                          |                  |                |                                                                      |            |
| HYDRAULIC-A/B<br>BOOSTER                                     | CT-98-10-020-F<br>PRESSURE 6A6E                                                                                                                                                                                                                 | FAR<br>87-06562-3                            | 1160                     | COMPLEX          | 5 8            | VES ROCHESTER<br>NO 6801-718-1                                       | <b>†</b>   |
| FAILURE MODE-CONTAMINATI<br>NIAMINANTO ATTRIBUTED DAL        | PAILURE MODE-CONTAMINATION-CONTAMINATED BY MEAVY WHITE MONDER ON THE EXTERNAL AND INTERNAL BURFACES OF THE SASE. CO<br>Ntaminants attributed salt air condensation entering through relief Plus Mole.                                           | DER CH THE EXTERNAL PELIEF PLUS NOLE.        | AND INTERN               | ML DURFA         | 8              | THE 6466. CO                                                         |            |

CORRECTIVE ACTION-60/C RECOMMENDED THAT THE COVER DOOR OF THE EASE INSTALLATION DE KEPT CLEASD WEN VEHICLE IS IN V

GENERAL BYNAMICS CONVAIR BIVIBION

DIFFICULTIES REVIEW-HYDRAULIC SYSTEM-AIRBORNE

10 JUN 1986

| TEST/REPORT NUMBER<br>PAILED CONFORENT NAME                                                                                                                                                                                                                                                                        |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ESTICAL POSITION THAT THERE IS NO EXPOSURE OF THE GASE TO DIRECT SUN RAYS. INSPECT GASE MORE PRESUENTLY TO ASSUNE<br>RELIEF PLUS IS IN PLACE.                                                                                                                                                                      |
| 3P-AB-04-/ EBE-F<br>ACTUATOR-SER VOVAL VE                                                                                                                                                                                                                                                                          |
| FAILURE MODE-CONTAMINATION, FAILURE REPORTED DURING A SELL RUN WHEN A MALL READING OF 1.4 VOLTS MAS OBTAINED, PARAG<br>Raph 3.4 of Procedure 33-85023 allohs a mall reading of 0.83 volts maximum. Pailure has caused by contaminany interferring with the flow of hydralize fluid to the modele of the bervorale. |

| CORRECTIVE ACTION-TH<br>ANMARY 1962 BEFORE TH | CORRECTIVE ACTION-THE VENDER INTENSIFIED INSPECTION SURVEILLANCE OF THE SERVONALNE. THE PAILED UNIT MAS ASSENBLED A<br>AMMARY 1962 BEFORE THE CORRECTIVE ACTION TOOK PLACE. | MAVELLIANCE OF THE BERVO | WALVE. THE PASS | LED UNIT WAS ASSESSED A       |
|-----------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|-----------------|-------------------------------|
| HTDRAUL IC-A/B<br>BOOSTER                     | A-50-10-193-F<br>HYGRAULIC PUP, 0-8116                                                                                                                                      | FAR<br>27-06560-1        | 14 VTA          | YES VICKERS<br>ND ARGOSS-R-EA |
| FAILURE MODE-LEAR ER                          | FAILUME MODE-LEAK EXTERNAL-HYDRAULIC PLUID LEAK AT CUTLET PLANKE.                                                                                                           | יועני הנאפנ.             |                 |                               |

27.52.0

|                                                                                                                                                                                                  | =======================================   |                                                                                                  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|--------------------------------------------------------------------------------------------------|
| IO CUTLET PLANKE AND COMP                                                                                                                                                                        | GAGSES FACTORY YES CONVAIR GAGSES         | PORT.                                                                                            |
| AT CONTONANCE 1                                                                                                                                                                                  | 1126<br>690513                            | CAESA THANESDA IN                                                                                |
| HOL ADDED 100 PERCE<br>NAPECTION PROCEDURE                                                                                                                                                       | FAR<br>E7-65300-7                         | IT HISALIGNOCHT OF B                                                                             |
| CORECTIVE ACTION-FAILURE CONTINED-VICKERS BUALITY CONTROL ADDED 100 PERCENT CONFUNMENT TO CUTLET PLANKE AND COMP<br>NAATOR. DRAMING DETAILS SHOULD BE MAINTAINED PER THEIR INSPECTION PROCEDURE. | A-AS-10-1927<br>MANIFOLD PLUE, MECHANICAL | FAILURE HODE-LEAK-EXTERMAL-EXTERMAL OIL LEAKAGE CAUMED BY MISALIGHMENT OF SCHEM THREADS IN PORT. |
| CORECTIVE ACTION-FA                                                                                                                                                                              | HTDRAULIC-A/B<br>BOOGTER                  | FAILURE MODE-LEAK-EN                                                                             |

|                                                                                                         | :                                                    |                                                                                                      |
|---------------------------------------------------------------------------------------------------------|------------------------------------------------------|------------------------------------------------------------------------------------------------------|
| INT INSPECTION NETHODS.                                                                                 | 1246 PACTORY VES VINECA<br>630166 PACTORY VES VINECA | IN THAN THE PACTORY ALLOWBLE                                                                         |
| ME NORE STRING                                                                                          | 900 000<br>093 1                                     | M PERIOD SACATI                                                                                      |
| IOL ADVIBED TO 1                                                                                        | FAR<br>87-06870-1                                    | NOPPED IN A 24 P                                                                                     |
| CORECTIVE ACTION-PAILURE CONFIRMED-CONVAIR BUALITY CONTROL ADVISED TO USE STRINGENT INSPECTION METHODS. | NE-AN-10-1077<br>PREUMATIC MELIEF VALVE              | TERMAL LEAK. SASEOUS PRECHARGE PRESSURE DROPPED IN A 24 MR PURIOG GREATER THAN THE PACTORY ALLOMASLE |
| CORRECTIVE ACTION-FAIL                                                                                  | HTDRAULIC-A/B<br>BOOSTER                             | FAILURE MODE-INTERNAL<br>OF 8 PSIG.                                                                  |

CORRECTIVE ACTION-NO FAILURE. PACTORY IMPRECTION PERROMMEL MERE INSTRUCTED THAT 7 PSIG PER BAY WAS ACCEPTABLE. IF 7 ME LEARAGE WAS ESTABLISMED AS BEING SOLELY FROM INTERNAL LEARAGE.

....

GENERAL BYNAMICS CONVAIR DIVISION

18 JUN 1988

| ,           | 9961 MAP 61                                                                          | DIFFICULTIES REVIEW-HTDRAULIC STSTEW-AIRSORMS                                                                                                                                                                  | AULIC BYSTEN-AIRBORI                                                                                 | v                                       |            |         |                                           |       |
|-------------|--------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|-----------------------------------------|------------|---------|-------------------------------------------|-------|
| لـــــا     | STSTEM<br>SUB-SYSTEM                                                                 | TEST/REPORT NUMBER<br>FAILED COMPONENT NAME                                                                                                                                                                    | DIF DATA SOURCE<br>PART NUMBER                                                                       | VENICLE BITE<br>DATE DIP TIME BIP       | 11 ME 11 P | 2 to 0  | VENDOR NAME<br>VENDOR PART NO             |       |
| <del></del> | HYDRAULIC-A/B<br>BOOSTER                                                             | SP-SD-10-183F<br>HTDRAULIC ACCUMUATOR, O-RIM                                                                                                                                                                   | FAR<br>27-00554-3                                                                                    | 1400                                    | VA/B       | 20      | PEACOCK<br>81310-3                        | 7     |
|             | FAILURE MODE-LEAK-INTERN<br>MAS CAUSED BY THE PERHEAI                                | EAK-INTERNAL-6AS PRECHARGE LEAKAGE ACROSS THE INTERNEDIATE PISTON<br>The Perheable nature of the o ring to migh pressure hitrogen gas.                                                                         | ACROSS THE INTERMEDIATE PISTON O-RING SEAL INTO THE HYDRAULIC SIDE<br>TO HISM PRESSURE NITROGEN GAS. | *************************************** | [AL 1870   | Ä       | YDRAULIC BIDE                             |       |
|             | CORRECTIVE ACTION-BETTER GUALITY CONTR. MODIFYING THE BOOSTER HYDRAULIC SYSTEM.      | ON-BETTER GUALITY CONTROLLED O-RINGS DID NOT BOLVE THE PAILUNE PROBLEM CONVAIR BUBHITTED AN ECP PUR<br>XOSTER HYDRALLIC SYSTEM.                                                                                | FOLVE THE PAILURE !                                                                                  | PROBLEM CO                              | HVAIR BUE  | JAI TIE | D AN ECP PUR                              |       |
|             | HTDRAULIC-A/B<br>BOOSTER                                                             | A-90-04-4300-C<br>ACTUATOR                                                                                                                                                                                     | FAR<br>27-06350-0                                                                                    | 46£<br>430501                           | MR-        | 20      | YES HYDRAULIC RESE<br>NO ARCH<br>104700-9 | • 110 |
|             | FAILURE MODE-LEAK-EXTERN<br>ISUAL INSPECTION.                                        | FAILUME MODE-LEAK-EATERNAL. BOOGTER PITCM BERNO ASSEMBLY MAS LEAKING AT & BROPS PER MOUR. FAILUME OBSCRUED DURING V<br>Sual inspection.                                                                        | NS LEAKING AT 8 DROP!                                                                                | PER HOUR                                | . PAILUR   | 8       | AVED DURING V                             |       |
|             | CORRECTIVE ACTION-NOME.                                                              | CAUSE NOT DETERMINED.                                                                                                                                                                                          |                                                                                                      |                                         |            |         |                                           |       |
|             | MYDRAULIC-A/B<br>BOOSTER                                                             | 8P-99-10-170F<br>Hydraulc Accumalator                                                                                                                                                                          | FAR<br>27-06554-3                                                                                    | 2010<br>630403                          | FACTORY    | ¥ 0     | PEACOCK<br>81310-3                        | i     |
|             | FAILURE MODE-LEAR-EXTERN                                                             | FAILURE MODE-LEAK-EXTERNAL-MYDRAULIC ONL LEAKED PROM THE ACCUMULATOR BLEED FORT.                                                                                                                               | CCUMULATOR BLEED FOR                                                                                 | <u>.</u>                                |            |         |                                           |       |
|             | CORRECTIVE ACTION-PAILURE NOT CONFINED.<br>ED PORTS AND PMEUNATIC BLEED PORTS OF THE | CORRECTIVE ACTION-FAILURE NOT CONFINED. CONVAIR INITIATED DESIGN CORRECTIVE DORTS AND PACUALITY SLEED PORTS OF THE UNIT BE IDENTIFIED ON THE VEHICLE.                                                          | DESIGN CORRECTIVE AND ON THE VEHICLE.                                                                | CTION BY                                | EGUESTIN   | THE     | ACTION BY REQUESTING THE HYDRAULIC BLE    |       |
|             | MYDRAULIC-A/B<br>BOOSTER                                                             | A-90-10-199F<br>HTDRAULIC TUBE ASSEMBLY-S-NUT                                                                                                                                                                  | FAR<br>27-05107-000                                                                                  | 24E<br>630401                           | VAFB       | 2 Q     | YES CONVAIR<br>NO                         | ****  |
| 1           | FAILURE HODE-LEAK-EXFERN                                                             | FAILURE MODE-LEAK-EXTERNAL-HYDRAULIC OIL LEAKAGE FRON TWE TUBE AT TWE COMMECTION WITH A TEE.                                                                                                                   | TUBE AT THE COMMECTA                                                                                 | 4 HT 134                                | H          |         |                                           |       |
|             | CORRECTIVE ACTION-UNKNOW                                                             | CORRECTIVE ACTION-UNKNOWN. PAILURE NOT CONFIRMED. DRAULIC-A/P                                                                                                                                                  | FAR                                                                                                  | 889                                     | FACTORY    |         | HYDRAILIC BESE                            | 1-    |
| 1           | 8008 TER                                                                             | ACTUATOR                                                                                                                                                                                                       | £7-0880-7                                                                                            | 811000                                  |            |         | ARCH<br>104700-1                          |       |
| ]           | FAILURE MODE-OUT OF SPEC                                                             | FAILURE MODE-OUT OF SPECIFICATION. THE SOOSTER SERVOCYLINDER ASSENSITY DEVELOPES A LEAR AT THE SLAND MUT BURING MISS<br>ILE CHECKOUT. AMALYSIS FOUND THAT THE SLAND MUT O-RIMS SROOVE WAS MACHINED TOO DEEPLY. | ER ASSEMBLY DEVELOPE<br>VE WAS MACHINES TOD                                                          | DEEPLY.                                 | 3 TE 9.    | ¥       | IT BURING HISS                            |       |

SCHERAL BYNAMICS CONVAIR BIVISICA DIFFICULTIES REVIEW-HYDRAULIC SYSTEM-AIRSORNE

1977

197949

11 mm 1066

23750

77 28 6

CORECTIVE ACTION-60/C AND AIR PORCE RELEASED HILITARY SPECIFICATION HIL-F-5800, AMENDMENT 7 ON GAOISE THEREST ELIN INATING THE USE OF ALUMINUM ALLOYS PROME TO STRESS-CORROSION CRACKING.

PACTORY YES PEACOCK NO 51310-1

71E

FAR 27-06884-3

A-99-10-166F ACCUMULATOR

HTDRAULIC-A/B

PAFLINE MODE-LEAK ENTERNAL. SAS PRECHARGE LEARASE MAS CAUSED BY A CRACK IN THE SEAM BETIEFEN THE CYLINDER BARREL AND The spherical end cap.

GENERAL BYNAMICS CONVAIR BIVISION

13 JUN 1966

## DIPFICULTIES REVIEW-HYDRAULIC SYSTEM-AIRSORNE

|                                             | <b>4</b>                                                                                                                               | 17200                             |                                                                                                                                                                                                                      | 1                                                 |                                                                                                                                                                                                                                                                               | •                                   |                                                                                                                                                                                                                                                                                                                                                                                         |                                            |                                                                                                                                                                            |
|---------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| WENICLE BITE PRI VENDOR MANE                | INPROVED BULLITY                                                                                                                       | YES AEROGUIP<br>NO 677025-6-0161  | VERIFT LEARAGE                                                                                                                                                                                                       | D STEREN ENGA AND D SFG 12860                     | 8 UPDATING.                                                                                                                                                                                                                                                                   | HYPRAULIC MESE<br>ARCH<br>CO4700-1  | MAC. LEAR RATE                                                                                                                                                                                                                                                                                                                                                                          | VES HYDRAUL!S RESE<br>NO ARCH<br>194700-18 | WAS CAUSED BY A                                                                                                                                                            |
| P TIME DIF OTH                              | O INSTALL AN                                                                                                                           | COMPLEX YES                       | CLEAN AND TO                                                                                                                                                                                                         | ATA<br>VE                                         | WRING E-BENIE<br>INBURE CONTA                                                                                                                                                                                                                                                 | PACTORY YES                         | STREAM OF LEA                                                                                                                                                                                                                                                                                                                                                                           | FACTORY VE<br>NO                           | 100 86AL. 7H18                                                                                                                                                             |
|                                             | JE MENUESTED T                                                                                                                         | 1160                              | To late house                                                                                                                                                                                                        | 9120 <b>8</b> 3                                   | AT 3000 Pale D                                                                                                                                                                                                                                                                | \$000<br>\$30£07                    | NY POR STEADY DISSTANDAND O- IE.                                                                                                                                                                                                                                                                                                                                                        | 102019                                     | T THE PLOTON A                                                                                                                                                             |
| DIF DATA BOUNCE<br>PART NUMBER              | F PAILURE AND (                                                                                                                        | FAR<br>27-00571-43                | E AID THE HOSE.                                                                                                                                                                                                      | FAR<br>87-06566-3                                 | THE PRESSURE                                                                                                                                                                                                                                                                  | FAR<br>27-06550-7                   | TH AGE. TH AGE. GAINST WEE OF I                                                                                                                                                                                                                                                                                                                                                         | FAR<br>87-06190-13                         | WLIC PLUID PAB                                                                                                                                                             |
| TEST/REPORT NUMBER<br>PAILED COMPONENT NAME | CORRECTIVE ACTION-THE VENDOR TO BE INFORMED OF THE CAUSE OF PAILUME AND BE MEDUESTED TO INSTALL AN IMPROVED BUALITY<br>Control system. | CT-98-10-019-F<br>TUBING PLEXIBLE | FAILURE MODE-LEAK EXTERNAL-REPORTED LEAK PAST SOCKET SLEEVE AND THE MOSE,<br>Corrective action-failure mot comfinmed-60/c advised comizant personeel to wipe moses clean and to verify learage<br>Rior to rejection. | A-90-10-175C<br>HTDKALLIC VALVE-MANIALLY OPCRATED | FAILURE MODE-LEAR-EXTERNAL-VALVE REPORTEDLY LEAKED WITH BYBITH PRESSURE AT 8000 PSIG DURING E-SERIES UPDATING.<br>Corrective action-failure analysis not compucted. 20/C Advised Cognizant Personeel to insure compatibility with APP<br>Icable operational Technical orders. | FARNZ-99-04-4108-F<br>Actuator 96al | FAILUME MODE-LEAK-EXTERNAL. BOOSTER SERVO CYLINDER WAS REJECTED AT PACTORY POR STEADY STREAM OF LEAKAGE. LEAK RATE MES S DROPS PER MOUR DUE TO AN O-RING WHICH NAD NARDDRED WITH AGE. CORRECTIVE ACTION-YORR SIIZ-63 HOTIFIED VENDOR TO ASSUME AGAINST USE OF SUBSTANDARD O-RINGS, ANA BULLETIN 436 . A AD MERED TO IN PREPARATION OF RUBBER-ASSENBLY-DATE DECALS FOR MISSILE HARDMARE. | 8P-A9-C4-4187-F<br>ACTUATOR 8EAL8          | FAILURE MODE-LEAK-EXTERNAL. THE BERNOCYLINDER LEAKED MYDRAULIC PLUID PABT THE PIBTOM ROD BEAL. THIB WAS CAUSED BY A<br>Mong-bize o-ring and an out of Igleance Pibton Rob. |
| 8787EN<br>808-8787EN                        | CORRECTIVE ACTION-THE W                                                                                                                | HTDRAULIC-A/B<br>BOOSTER          | FAILURE MODE-LEAK ENTERI<br>CORRECTIVE ACTION-FAILU<br>PRIOR TO REJECTION.                                                                                                                                           | HTDRAULIC-A/B<br>BOOSTER                          | FAILURE MODE-LEAR-EXTERNAL-VALVE REP<br>CORRECTIVE ACTION-FAILURE ANALTSIB N<br>LICABLE OPERATIONAL TECHNICAL ORDERS.                                                                                                                                                         | HYCRAULIC-A/B<br>BOOSTER            | FAILUME MODE-LEAK-EXTER MGS S DROPS FER MOUR DUE CORRECTIVE ACTION-YCAR MERED TO IN PREPARATION                                                                                                                                                                                                                                                                                         | HYDRAULIC-A/B<br>BOOSTER                   | FAILURE MODE-LEAK-EXTERI<br>MOM6-512E O-RING AND AI                                                                                                                        |

CORRECTIVE ACTION-NONE.

15 JUN 1966

SEMERAL DYNAMICS CONVAIR DIVISION

| PAILURE WORKERON OF TOCENNEE, THE UNIT HER SERES INSTITUTED IN A MANNER BOTHER MACHED WITH THE GOODS COMPINATE THE WILLIAM TO TOCENNEE, THE UNIT HER SERES THE WILLIAM TO TOCENNEE, THE UNIT HER SERES THE WILLIAM TO TOCENNEE, THE UNIT HER SERES THE UNIT HER GOODS COMPINATE THE WILLIAM THE GOODS COMPINATE THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM THE WILLIAM TH | 879TEN<br>8V8-878TEN                                                                     | TEST/REPORT NUMBER<br>FAILED COMPONENT NAME                                                                           | DIF DATA BOUNCE<br>PART NUMBER                                             | WEMICLE BITE<br>DATE DIF TIME DIF | 11TE 01F               | # 0<br>2 7                                     | VENDOR NAME                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |      |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|-----------------------------------|------------------------|------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| HINTON REQUISID MATING DEPTH WAS EXCRECED, THIS GLOBED A RESISTECTION IN THE HIDDALLE LINE AND CLUSED A PRESIDENCE OF TOLERANCE. THIS WAS EXCRECED, THIS GLOBED A RESISTECTION IN THE HIDDALLE LINE AND CLUSED A PRESIDENCE OF ALL STRUCK OF THE SIEGET PRODUCE TO WHICH ENGANGES OF WHITE SECONDS. SECONDS. THE SIEGET PRODUCES OF WHITE SECONDS. THE STRUCK OF THE SIEGET PRODUCES OF WHITE SECONDS. THE STRUCK OF THE SIEGET PRODUCES OF WHITE SECONDS. UPON ACTUATION OF THE AUTOMICS. THE SUDGEST PRODUCES CLUSED ON THE SUDGEST PRODUCES CLUSED ON THE SUDGEST PRODUCES CLUSED ON THE SUDGEST PRODUCES CLUSED ON THE SUDGEST PRODUCES CLUSED ON THE SUDGEST PRODUCES CLUSED ON THE SUDGEST PRODUCES CLUSED ON THE SUDGEST PRODUCES CLUSED ON THE SUDGEST PRODUCES CLUSED ON THE SUDGEST PRODUCES CLUSED ON THE SUDGEST PRODUCES CLUSED ON THE SUDGEST PRODUCES CLUSED ON THE SUDGEST PRODUCES CLUSED ON THE SUDGEST PRODUCES CLUSED ON THE SUDGEST PRODUCES CLUSED ON THE SUDGEST PRODUCES CLUSED ON THE SUDGEST PRODUCES. THE SUDGEST PRODUCES CLUSED ON THE SUDGEST PRODUCES CLUSED ON THE SUDGEST PRODUCES. THE SUDGEST PRODUCES CLUSED ON THE SUDGEST PRODUCES CLUSED ON THE SUDGEST PRODUCES. THE SUDGEST PRODUCES CLUSED ON THE SUDGEST PRODUCES. THE SUDGEST PRODUCES CLUSED ON THE SUDGEST PRODUCES. THE SUDGEST PRODUCES CLUSED ON THE SUDGEST PRODUCES. THE SUDGEST PRODUCES CLUSED ON THE SUDGEST PRODUCES. THE SUDGEST PRODUCES CLUSED ON THE SUDGEST PRODUCES. THE SUDGEST PRODUCES CLUSED ON THE SUDGEST PRODUCES. THE SUDGEST PRODUCES CLUSED ON THE SUDGEST PRODUCES. THE SUDGEST PRODUCES CLUSED ON THE SUDGEST PRODUCES. THE SUDGEST PRODUCES CLUSED ON THE SUDGEST PRODUCES. THE SUDGEST PRODUCES CLUSED ON THE SUDGEST PRODUCES CLUSED ON THE SUDGEST CLUSED ON THE SUDGEST CONTINUES. THE SUDGEST CONTINUES OF THE SUDGEST CONTINUES. THE SUDGEST CONTINUES OF THE SUDGEST CONTINUES. THE SUDGEST CONTINUES OF THE SUDGEST CONTINUES. THE SUDGEST CONTINUES OF THE SUDGEST CONTINUES. THE SUDGEST CONTINUES OF THE SUDGEST CONTINUES. THE SUDGEST CONTINUES OF THE SUDGEST CONTINUES. THE SUDGEST C | HTDRAULIC-A/B<br>BOOSTER                                                                 | aP-88-10-164F<br>RISEUFF DISCONECT COUPL'NG.                                                                          | FAR<br>27-06587-3                                                          | 10201                             | PACTORY                | 20                                             | MACOCA<br>11295-3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |      |
| ACTIVE ACTION-CONVEIR CORRECTED THE TOOL METERS TO PER SIECT DISCOMECT PARE, P-98-1817, 8-98-18-1857.  IC-A/B ACASS-0017-82-40-00-29  FLIGHT BOO TO SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY SECURITY | ž ¥                                                                                      | TOLERANCE, THIS UNIT HAD BEEN IMBTAL<br>ED MATING DEPTH WAS EXCEDED, THIS C                                           | LED IN A MANNER BO THA<br>AUBED A RESTRICTION IN                           | THE HYDRA                         | 46EB WITH              | A O                                            | CAUSED A PRES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |      |
| TETECT-NOCE. VENICLE EFFECT-LOSS OF VENICLE STREET REGISTED.  RE MODE-OUT OF SPECIFICATION. THE BOOSTER DEGINE ACCUMATORS WER HISALINGED.  RE MODE-OUT OF SPECIFICATION. THE BOOSTER DEGINE ACCUMATORS WERE SPECIFICATION CAUSED HOMBILL PITCH AND YAW WERE STREET. HAS GRANDED. THE AUTOFILOT. THE AUTOFILOT CORN MAND NO FURITHER VENICLE EFFECT HAS GRANDED. THE AUTOFILOT. THE AUTOFILOT CORN TRANSIENTS- AND ARE WERE EFFECT. HAS GRANDED. THE AUTOFILOT. THE AUTOFILOT. THE AUTOFILOT CORNECTED AND THAN TRANSIENTS- AND ARE WERE EFFECT HAS GRANDED.  CENTERCH-CORNECTE STABLETY. THE BOOSTER DEFINETTIONS CAUSED HUMBHAND PITCH AND THAN TRANSIENTS- AND ARE WERE EFFECT HAS GRANDED.  CENTERCH-CORNECTE STABLETY. THE BOOSTER DEFINETTIONS OF THE AUTOFILOT. THE AUTOFILOT CORNECTED AND THAN TRANSIENTS- AND ARE WERE MODE-ERRATIC OFFRATION. THE BOOSTER REPORTATION OF THE AUTOFILOT. THE AUTOFILOT CORNECTED AND THAN THAN THAN THAN ACCUMANCE OF ACCUMANCE OF THE AUTOFILOT. THE AUTOFILOT CORNECTED AND THAN THAN ACCUMANCE AND THAN THAN THAN THAN THAN ACCUMANCE OF THE AUTOFILOT OFFRATION OF THE AUTOFILOT OF THE AUTOFILOT OF THE AUTOFILOT OF THE AUTOFILOT OFFRATION OF THE AUTOFILOT OFFRATION OF THE AUTOFILOT OFFRATION OF THE AUTOFILOT OFFRATION OF THE AUTOFILOT OFFRATION OF THE AUTOFILOT OFFRATION OF THE AUTOFILOT OFFRATION OF THE AUTOFILOT OFFRATION OF THE AUTOFILOT OFFRATION OFFRATION OF THE AUTOFILOT OFFRATION OFFRATION OF THE AUTOFILOT OFFRATION OFFRATION OF THE AUTOFILOT OFFRATION OFFRATION OF THE AUTOFILOT OFFRATION OFFRATION OF THE AUTOFILOT OFFRATION OFFRATION OF THE AUTOFILOT OFFRATION OFFRATION OF THE AUTOFILOT OFFRATION OFFRATION OF THE AUTOFILOT OFFRATION OFFRATION OF THE AUTOFILOT OFFRATION OFFRATION OFFRATION OFFRATION OFFRATION OFFRATION OFFRATION OFFRATION OFFRATION OFFRATION OFFRATION OFFRATION OFFRATION OFFRATION OFFRATION OFFRATION OFFRATION OFFRATION OFFRATION OFFRATION OFFRATION OFFRATION OFFRATION OFFRATION OFFRATION OFFRATION OFFRATION OFFRATION OFFRATION OFFRATION OFFRATION OFFRATION OFFRATION OFFRATION OFFRATION OFFRATION  | CORECCTIVE ACTION-COT                                                                    | MVAIR CORRECTED THE TOOL SKETCH OF THE FAILURES ON UNITS REPORTED ON FAR                                              | ME RISEOFF DISCONDECT<br>S. SP-99-161F; SP-99-1                            | PANEL FOR<br>0-162F, DP           | VEHICLE (              | UADA.                                          | 1478 1 AND E.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |      |
| RE MODE-OUT OF SPECIFICATION. THE BOOMER DAKING ACCUMING WEAR WINALIMED.  HETECT-HOME. VEHICLE EFFECT LOSS OF VEHICLE BYABILITY. THE BOOMTER DEPLETIONS OF THE AUTOFILOT. THE AUTOFILOT COMB AND NO FLATHER VEHICLE EFFECT LOSS OF VEHICLE BYABILITY. THE BOOMTER COMB AND NO FLATHER VEHICLE EFFECT LOSS OF VEHICLE STABILITY. THE BOOMTER COMB AND NO FLATHER VEHICLE EFFECT LOSS OF VEHICLE STABILITY. THE BOOMTER LOSS OF VEHICLE STABILITY. THE BOOMTER LOSS OF VEHICLE STABILITY. THE BOOMTER LOSS OF VEHICLE STABILITY. THE BOOMTER LOSS OF VEHICLE STABILITY. THE BOOMTER LOSS OF VEHICLE STABILITY. THE BOOMTER LOSS OF VEHICLE STABILITY. THE BOOMTER LOSS OF VEHICLE STABILITY. THE BOOMTER LOSS OF VEHICLE STABILITY. THE BOOMTER LOSS OF THE AUTOFILOT COMBECTED AND NEW THOMAS ACCUMING THE AUTOFILOT. THE AUTOFILOT COMB CLIVE ACCUMING THE SAURE CONTINUED ASSEMBLY CACILLATED WITH NO SIGNAL TO THE SERVOYALY RAD OND TO SOOD | HTDRIUL [C-A/B                                                                           | AOJ43-0017/82-401-00-29<br>ACTUATOK, ASSEMBLY                                                                         | FLIGHT 27-06550-7                                                          | 340<br>830183                     | 0                      | 463                                            | 17DRAULIC <b>RESE</b><br>18CH<br>10470 <b>g-</b> 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 8178 |
| AND NO FURTHER WENICLE EFFECT WAS GASEAVED.  LE EFFECT-LOSS OF VENICLE STABILLY, THE BOOSTER DEFLECTIONS CAUGED UNMANAL PITCH AND TAN TRANSIENTS- AND AN UCOUNTERCLOCKNISE ROLL AT 0.9 SECONDS, UPON ACTUATION OF THE AUTOFILOT. THE AUTOFILOT CORNECTED AND NO FURTHER LE FFECT WAS CASEAVED.  CTIVE ACTION-NOTE.  CTIVE ACTION-NOTE.  CTIVE ACTION-VENOR UPOATED ALL MERVOCYLINDER ASSEMBLY OBCILLATED MITH NO SISMAL TO THE SERVOYALVE AND DOD TO 3000 PASE WINDALLIC PRESSURE ON THE UNIT. MALPUNETION WAS INTENDED TO A LOOSE TOWNER NOTOR COLL.  CTIVE ACTION-VENOR UPDATED ALL MERVOCYLINDER ASSEMBLIES TO A CONFIGURATION WHEREIN THE TORINE NOTOR COLL.  CTIVE ACTION-VENOR UPDATED ALL MERVOCYLINDER ASSEMBLIES TO A CONFIGURATION WHEREIN THE TORINE NOTOR COLL.  CTIVE ACTION-VENOR UPDATED ALL MERVOCYLINDER ASSEMBLIES TO A CONFIGURATION WHEREIN THE TORINE NOTOR COLL.  CTIVE ACTION-VENOR UPDATED ALL MERVOCYLINDER ASSEMBLIES TO A CONFIGURATION WHEREIN THE TORINE NOTOR COLL.  ACTUATOR ASSEMBLY  REHOGE-ERRATIC OPERATION ASSEMBLY  REHOGE-ERRATIC OPERATION ACTUATOR DROVE BOOSTER EMBINE E TOO MARD OWER POBITIVE PITCH WHIN WORKEN WORKING PRICE ALLONARY OF SACH ACTUATOR ASSEMBLY EACH CONTAINANTS LODSING BETWEEN MORE PIECE ALLONARY OF SACH AND OVER POBLING AND POLE PIECE.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | FAILURE MODE-OUT OF :<br>SYSTEM EFFECT-NOME. '                                           | SPECIFICATION: THE BOOMTER DIGINE AC<br>VEHICLE EFFECT-LOSS OF VEHICLE BTABL<br>DISUAL COMPTRECLOCKNINE MOLL AT 0.8 B | CUATORS WERE HISALISME<br>LITY. THE BOOSEER BEFL<br>ECONDS, UPON ACTUATION | B.<br>ECTIONS CA<br>OF THE AU     | USED URIN              | IR.                                            | PITCH AND VAN                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |      |
| IC-A/8 SP-99-04-4124-F FAR 1990 PACTORY HYDRAALIC RESE  ACTUATOR/MOTOR 27-06-5124-F FAR 1990 PACTORY HYDRAALIC RESE  ACTUATOR/MOTOR 27-06-5124-F FAR 27-06-550-7 630116 10-700-1  TO 3000 PASS HYDRAALIC PRESSURE ON THE UNIT. MALPUNCTION WAS DUE TO A LOOSE YORSEE MOTOR COLLS ARE  CTIVE ACTION-VENOOR UPDATED ALL RENVOCYLINDER ASSEMBLIES TO A CONFIGURATION WHEREIN THE TORSEE MOTOR COLLS ARE  IC-A/8 A-09-04-4073F FAR 1355-9 630110 MED ACTORY YES HYDRAALIC RESE  A-09-04-4073F FAR 1355-9 630110 MED ACTUATOR DROVE POOBTER EMSINE E TOO MARD OWER POBITIVE PITCH WHEN HYDRAALIC PRESSUR  INCREASED TO 3000 PASS. FAILURE WAS CAUSED BY METAL CONTAINMANTS LODGEN BRITTER ARMATURE AND POLE PIECE ALLON  HOUR ASSEMBLY REAS CAUSED BY METAL CONTAINMANTS LODGEN BRITTER ARMATURE AND POLE PIECE ALLON  AND DECEMBER.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | ECTED AND NO FURTHER SEMICILE EFFECT-LOSS (MASSAL COUNTERCLOCKWEIN WEMICLE EFFECT MAS OF | VEHICLE EFFECT WAS CASEAVED.  OF VEHICLE STABILITY, THE SCOSTER DE SE ROLL AT D.S SECONDS: UNON ACTUATE DERNED.       | FLECTIONS CAUSED UNMEN                                                     | ML PITCH A                        | ND TAN TR<br>OT CORREC | <b>3</b> 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | ENTS- AND AR U                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |      |
| IC-A/B SP-99-04-4124-F FAR 199D PACTORY HYDRAALIC REME<br>ACTUATOR/HOTOR ACCHAIGON/HOTOR ACTUATOR/HOTOR ACTUATOR/HOTOR ACTUATOR/HOTOR ACTUATOR/HOTOR ACTUATOR/HOTOR ACTUATOR THE BOOSTER REMVOCYLINDER ASSENGLY OCCILLATED METH HO SIGNAL TO THE SERVOVALVE AND BOOS TO SUDD PASE HYDRAULIC PRESSURE ON THE UNIT, MALFUNCTION WAS BUE TO A LOOSE TORGUE HOTOR COLLS AND CTIVE ACTION-VENOON UPDATED ALL MERVOCYLINDER ASSENGLIES TO A COMPTIGURATION WHEREIN THE TORGUE HOTOR COLLS AND RED ST A RUBSER SMCLOSURE TO PREVENT SHIPTING.  IC-A/B A-89-04-4073F PAR PAGE ENGINE R TOO HARD OVER POSITIVE PITCH WHEN HYDRAULIC PRESSUR ACTUATOR ASSENGLY RESIDER ENGINE R TOO HARD OVER POSITIVE PITCH WHEN HYDRAULIC PRESSUR IMPREVED TO SOOD PASE, FAILURE WAS CAUSED BY METAL CONTANINANTS LOOSING SETMEN ARMATURE AND POLE PIECE ALLOW AND TO GO MARD OVER, MATERIAL CAME FROM SLOTTED HEAD OF SCREUGH MOLDING POLE PIECES.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | CORRECTIVE ACTION-NO                                                                     | į                                                                                                                     |                                                                            |                                   |                        |                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |      |
| FAILURE MODE-ERRATIC OPERATION. THE BOOGSTER BERVOCYLINDER ASSEMBLY OBCILLATED MET NO SISMAL TO THE SERVOVALVE AND WITH 1000 TO 3000 PASS HYDRAULIC PRESSURE ON THE UNIT, MALPUNCTION WAS DUE TO A LODGE TORGUE MOTOR COLL.  CORECTIVE ACTION-VENDOR UPDATED ALL RERVOCYLINDER ASSEMBLIES TO A CONFISHMATION WHEREIN THE TORGUE MOTOR COLLS ARE AUPPOATED ST A RUBBER SMCLOSURE TO PREVENT BHITTIME.  FAR 138F PACTORY VES HYDRAULIC RESE ACTUATOR ASSEMBLY ET-08550-8 \$30510 ND AGON 104700-8  FAILURE MODE-ERRATIC OPERATION. ACTUATOR DROVE 2008TER EMBINE E TOD MARD OWER POBITIVE PITCH WHEN HYDRAULIC PRESSUR E MAS INCREASED TO 5000 PASS. PAILURE WAS ALOUR POBITIVE PITCH WHEN HYDRAULIC PRESSUR IN A SERVO TO CO MARD OWER. MATERIAL CAME PROD OF SCREUB MOLDING POLE PIECE ALLOW                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | HYDRAULIC-A/B                                                                            | 3P-99-04-4124-F<br>ACTUATOR/MOTOR                                                                                     | FAR<br>27-06550-7                                                          | 1980                              | PACTORY                |                                                | HYDRA A.IC RESE<br>NACH<br>10//00-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |      |
| CORRECTIVE ACTION-VENDOR UPDATED ALL RENVOCYLINDER ASSEMBLIES TO A CONFIGURATION UNEREIN THE TORGUE WOTCH COLLS ARE SUPPORTED BY A RUBBER ENCLOSURE TO PREVENT BAIFTIMS.  A-88-04-4073F  A-88-04-4073F  A-88-04-4073F  ACTUATOR ASSEMBLY  FAILURE HODE-ERRATIC OPERATION, ACTUATOR DROVE BOOSTER EMSINE E TOO MARD OWER POBITIVE PITCH UNEN HYDRAULIC PRESSUR E MAS INCHEASED TO BODD PSIS, FAILURE HAS CAUSED BY METAL CONTAMINANTS LODGING BETWEEN ARMATURE AND POLE PIECE ALLOW ING SCHOOL PIECE ALLOW ING SCHOOL PATERS.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | FAILURE MODE-ERRATIC<br>WITH 1000 TO 3000 PBS                                            | CPERATION. THE BOOSTER BERVOCYLINDE G HTDRAULIC PRESSURE ON THE UNIT. MA                                              | R ASSEMBLY OSCILLATED                                                      | METH NO &!                        | EMAL TG 1              | # 5<br># 5                                     | ER VOVALVE AND                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |      |
| ATDRALLIC-A/B A-89-04-4073F FAR 135F FACTORY TES HTDAALLIC RESE BOOSTER ACTUATOR ASSEMBLY E7-08550-9 \$30110 NO AACH 104700-9 FAILURE HODE-ERRATIC OPERATION, ACTUATOR DROYF POOSTER EMBINE E TOO HARD OWER POSITIVE PITCH NATUR HYDRALLIC PRESSUR E MS INCREASE TO SOOD PSIS, FAILURE WAS CAUSED BY METAL COMPANIANTS LODGING BETWEEN ARMATURE AND POLE PIECE ALLOW ING SERHO TO GO HARD OVER, MATERIAL CAME FROM BLOTTED HEAD OF SCREWE MOLDING POLE PIECE ALLOW                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | CORRECTIVE ACTION-VEI                                                                    | NOOM UPDATED ALL MERVOCYLINDER ABBEN<br>A ENCLOBURE TO PREVENT BHIFTING.                                              | BLIES TO A CONFISHIRATE                                                    | ON WACACIN                        | THE TOR                | ă                                              | DTON COLLS AND                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |      |
| FAILURE HONE-ERRATIC OPERATION. ACTUATOR DROWE POOSTER EMBINE E TOO HARD OWER POOSTITY PITCH WHEN HYDRAULIC PRESSUR<br>E MAS INCREASED TO 5000 PSIS. PAILURE MAS CAUSED BY METAL CONTAMINANTS LODGING DETMEN ARMATURE AND POLE PIECE ALLOW<br>ING SCHYO TO GO HARD OVER. MATERIAL CAME FROM BLOTTED HEAD OF SCHEUG HOLDING POLE PIECES.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 47DRAULIC-478<br>60047ER                                                                 | A-88-04-4073F<br>ACTUATOR ABBEMBLY                                                                                    | FAR<br>87-06550-0                                                          | 1356                              | PACTORY                | 5 9                                            | ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В ИТОЯ В И |      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | FAILURE HODE-ERRATIC<br>E MAS INCREASED TO BOI<br>INS SERMO TO GO MARD A                 | OPERATION, ACTUATOR DROVE BOOBTER E<br>00 PBIG. PAILURE UAS CAUSED BY METAL<br>OVER. MATERIAL CAME PROM BLOTTED HER   | MEINE E TOO MARD OWER<br>CONTAMINANTS LODGING<br>D OF SCREWE MOLDING PO    | POSITIVE P<br>BETWEEN AN          | ITCH WHEN              | 9                                              | RAULIC PRESSUR<br>LE PIECE ALLON                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |      |

PAILUME MODE-LEAM-ERICEMAL, MIDRAULI- DIL LEAKABE AT THE BLEEVE JOINT.

GENERAL DINAMICA CONVAIR DIVISION

18 JVM 1966

| 11 TAN 1868                             | DIFFICULTER REVIEW-HYDRAULIC SYSTEM-AIRBORNE                                                                                                                                                                                                                                                                                                  | RAULIC STREM-MINBON                                                 | ¥                                     |                                     |       |                                 | r                                      |
|-----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|---------------------------------------|-------------------------------------|-------|---------------------------------|----------------------------------------|
|                                         | 1637/REPORT NUMBER<br>FAILED COMPOSENT NAME                                                                                                                                                                                                                                                                                                   | DIF DATA SOURCE<br>PART NUMBER                                      | VEHICLE<br>DATE DIF                   | 111E 01F                            | £ 6   | VENDOR NAME<br>VENDOR PART NO   |                                        |
| END CO                                  | I-VENDOR CHANGED SCREWS FROM BLUTTED MEAD TO INTERNAL MER HEAD SCREMS.                                                                                                                                                                                                                                                                        | TO INTERNAL HER HEAD                                                | BCREMB.                               | •                                   |       |                                 | •37636                                 |
|                                         | A-9F-10-138C<br>HTDRAULIC PUMP                                                                                                                                                                                                                                                                                                                | FAR<br>87-08506-1                                                   | 640<br>650107                         | WAREN                               | 2.8   | VES VICKERS<br>NO AA-60684-R-EA | •                                      |
| , i                                     | FAILUMF MODE-STRUCTURAL-INSPECTION DISCOMERED AN EIGHT INCH CRACK IN THE PUMP CASE.<br>Corrective action-mome-mere has no contractural comerse to perform a pailure analysis.                                                                                                                                                                 | H CRACK IN THE PUMP<br>TO PERFORM A PAILURE                         | CASE.                                 |                                     |       |                                 |                                        |
|                                         | 40.42-0010/01-502-00-64<br>HTBALLIC PURP                                                                                                                                                                                                                                                                                                      | FLIGHT<br>27-0856-1                                                 | # # # # # # # # # # # # # # # # # # # | 243                                 | 5 8   | YES VICKERS<br>NO AA-BO684-R-EA | 3637.00                                |
| 8 9 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 | FAILURE MOG-EHRA-IC OPERATION. VARIATIONS IN HYDRALLIC PRESSURE NERE INDICATED FOR APPROXIMATELY 6 SECONDS FOLLONI<br>Me Liftoff. Imene Comad mane been caused by a bitching compunator in the Punp control mechanism.<br>System effect-erratic operation. Pluctuations existed in the booster low pressure system, with a maximum variation. | EASURE WERE INDICATE<br>ENSATOR IN THE PURP<br>HE BOOSTER LOM PRESS | D FOR APPR<br>CONTROL M               | IOKIDATEL<br>ECHANIBAL<br>1, MITH A | 1     | ECONDS FOLLOW!                  |                                        |
| MENICLE EFFECT-HONE.                    |                                                                                                                                                                                                                                                                                                                                               | -                                                                   | •                                     |                                     |       |                                 |                                        |
| CORRECTIVE ACTION-NUME.                 |                                                                                                                                                                                                                                                                                                                                               |                                                                     |                                       |                                     |       |                                 |                                        |
|                                         | AUL&-0647/L2-401-00-131<br>RISE-OFF DISCHMECT                                                                                                                                                                                                                                                                                                 | FL1647<br>E7-00550-5                                                | 1310                                  | 7.5                                 | 88    | PEACUER<br>91300-3              | •10100                                 |
| GRAC.                                   | FAILURE HOCE-STRUCTURAL. BOOGTER STRIEM HIGH-PRESSURE RISE-OFF DISCOMECT RUPTURED AT APPROXIMATELY BA SECONDS DUE<br>TO LACESSIYE EXPOSURE TO RADIATION HEATING. EXCESSINE EXPOSURE RESULTED FROM PAILURE OF RADIATION BHIELDS HHICH PELL<br>OFF AT LIFTOFF.                                                                                  | -OFF DISCOMENT RUPT                                                 | UNED AT AN                            | FROKINAT<br>1401A71CH               | 114   | A SECONDS DUE                   |                                        |
| ET LON                                  | STSTEM EFFECT-CEPLETION OF LIQUID SUPLY. BOOSTER STSTEM HYDRAILIC PLUID SUPPLY WAS DEPLETED AS RESULT OF ISCOMECT. CONSEQUENTLY, HYDRAILIC CONTROL PRESSURE TO BOOSTER EMGINES WAS LOST.                                                                                                                                                      | "DEALLIC PLUID BLPPL<br>ATER EMEINES WAS LOS                        | T MAS DEP.                            | £7£5 48                             | AESA  | T OF RUPTURED                   |                                        |
| 8 3                                     | MEMICLE EFFECT-LOSS OF MEMICLE STABILITY. LOSS OF MIDRAULIC COMPOL PRESSURE RESULTED IN LOSS OF WEMICLE STABILITY AND SUBSCUENCE DESIGNATION.                                                                                                                                                                                                 | CONTROL PRESSURE A                                                  | CBULTED 19                            | 1048 0                              | T W   | CLE \$7481L11"                  | ······································ |
| 15E-C                                   | CORRECTIVE ACTION-BISE-OFF DISCONCET WAS REDESIONED AND CARCA VALVES WERE INSTALLED IN THE BOOSTER AND SUSTAINER IN<br>IGN-PRESSOURE DISCONDECT LINES. CIC 07414.                                                                                                                                                                             | HECK VALVES WERE INC                                                | TALLED IN                             | THE BOOM                            | 15A A | NO BUSTAINER H                  |                                        |
|                                         | A-90-10-197F<br>HYDRAULIC FLEK HOSE                                                                                                                                                                                                                                                                                                           | FAR<br>27-08600-47                                                  | 837<br>921.804                        | Š                                   | 50    | TES RESISTOPLES<br>NO RESESS-47 | •                                      |
|                                         |                                                                                                                                                                                                                                                                                                                                               |                                                                     |                                       |                                     |       |                                 |                                        |

| BIREICE | CONTAIN BIVISION |
|---------|------------------|
| 1444    | CONVAIR          |
|         |                  |

| 13 .00                                                                         | DIFFICUATIES REVIEW-HTC                                                                                                                                                                                                                                                                                                                                                      | BIFFICULTIES REVIEW-HOMAULIC STATEM-AIMBORME                                | Ā                                    |                                       |                                                                                                                         |        |
|--------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|--------------------------------------|---------------------------------------|-------------------------------------------------------------------------------------------------------------------------|--------|
| 3737Em                                                                         | TESTARPORT WASER                                                                                                                                                                                                                                                                                                                                                             | SIF BATA BOURCE                                                             | WENICLE<br>DATE DIF                  | WAICLE 817E PR1                       | PRE WENDON HANG<br>OTH WENDON PART NO                                                                                   | _      |
| CONSECTING ACTION-12                                                           | CONECCTIVE ACTION- JAKHOOM, FAILURE NOT CONTINED.                                                                                                                                                                                                                                                                                                                            |                                                                             |                                      |                                       |                                                                                                                         |        |
| arbraue.ic-a/B                                                                 | A-84-04-4009F<br>ACTUATOR PLUS                                                                                                                                                                                                                                                                                                                                               | FAB<br>27-0850-8                                                            | 3 5                                  | 5                                     | YES HYDRANGIC RESE<br>NO ARCH<br>194700-9                                                                               | 121/16 |
| PAILUME MODE-LEAK E                                                            | FAILUME MODÉ-LEAR ERTERMAL. ACTUATOR LEAKED AROUND METAL PLUB. LEAR UND TRACED TO PIECE OF METAL, UNCER O-RIMG.<br>Corrective action-wydraulic redearch inditiuted tientér quality "Ontrol of the retal plub and contamination control                                                                                                                                       | L PLUS. LEAK WAS TRACE LEVEL OF THE                                         | 0 TO PIECE<br>E NETAL PL             | OF RETAL.                             | UCER OFFING.                                                                                                            |        |
| POSTER                                                                         | 56-89-04-3363/F<br>#CTUATOR/O-RING                                                                                                                                                                                                                                                                                                                                           | FAR<br>27-04550-7                                                           | 1900                                 | PACTORY                               | TES HYDRAULIC RE .E. NO ARCH 184700-1                                                                                   |        |
| FAILURE MCCE-LEAR-E<br>OF FAC SKRWXTLINGER<br>TALLATION AND USE OF             | FAILUME MCCE-LEAK-EXTERNAL-AN OIL LEAK OF UNDETERNINED MACHITUDE WAS FOLND AT THE PLOW LIMITER PLUS IN THE AFT END<br>OF THE SKRYCTLINGER, FAILUME ANNLYSIS CONCLUDED THAT THE LEAKAGE WAS CAUNED BY A CONDINATION OF IMPROPER O-RIME IN<br>TALLATION AND USE OF AN O-RIME IN UNION THE WATERIAL WAS MAND AND OF LOW STREEDSTM.                                              |                                                                             | 74 A COME.                           | MINTER &                              | INS FOUND AT THE PLON LINITER PLUS IN THE AFT END INS CALLED BY A CONDINATION OF IMPROPER O-RINE INS<br>OF LOW STREETH. | . 1    |
| COCRECTIVE ACTION 6<br>NAL CHECKS, AT BOX M                                    | COCRECTIVE ACTION 60/C COTAL CD VENOOR CORRECTIVE ACTION, EFFECT, WE ON DATE 440118, 100 PERCENT VISUAL AND DIMENSIO<br>NAL CHECARS, AT ELS MACHIFICATION, MEME INITIATED POR CHRIMGS MEED IN MERICENTINDER ABBENGLIEB. EFFECTIVE REPTEMBLE 1<br>, 1842, ACDITIONAL RAGASSENGLY INSPECTIONS MEME 1807/19/ED DURING INC.                                                      | N. EPECT, VE ON DATE &<br>LINEA UNED IN REMUCETA<br>ED DARITY INE ABBONEA   | 20718. 100<br>DER ABBER<br>OPERATION | PERCENT V                             | ISUAL AND DINEMS<br>ICTAME BEPTEMBER                                                                                    |        |
| HTD#AU.IC-4/8                                                                  | PF-A9-04-3311-F                                                                                                                                                                                                                                                                                                                                                              | FAK<br>87-43 200-651                                                        | <b>661509</b>                        | PECTORY                               | 7£8 60/C                                                                                                                | •      |
| FAILURE MODE-FAIL D. POSSIGLE CAUSE OF INC. TASTING.                           | FAILUME HOGE-FAIL DURING OPERATION. BURING FACTORY A/P STRTDAG TEST, SE ENGINE ZEROED EN A RAND" NOWDENT AT STAGENG<br>Possible cause of Failume is air in heb, streen or contamination in heb streen, beand and checked on buring extens<br>We tertime.                                                                                                                     | STSTEMS TEST, SI EMEIN<br>ITAMINATION IN MTD STST                           | C. 25000 1                           | A A BALLE                             | OVENENT AT BTAGE<br>D OK BURING ERTE                                                                                    | 11     |
| CORRECTIVE ACTION-N                                                            | ON-NOW. FAILURE NOT CONTINUED.                                                                                                                                                                                                                                                                                                                                               |                                                                             |                                      |                                       |                                                                                                                         | 1      |
| HTDRAULIC-A/B                                                                  | A-8P-04-838EF<br>ACTUATON/O-8386                                                                                                                                                                                                                                                                                                                                             | FA4<br>E7-00-80-8                                                           | #1.58<br>#1.58                       | P.A1780                               | PLATTBOU TES MTDRAULIC RESE<br>86 ND ARCH<br>184700-1                                                                   | 4      |
| FAILURE MOCE-LEAR-EXT<br>AT THE SHAFT DEAL, THE<br>EXCESSIVELY MONN OR RESERVE | FAILURE HOCC-LEAR-EXTERNAL-DUALING PERFORMINGS OF A CHECKOUT PROCEDURE, THE BODGETER ACTIVATOR ASSY BEVELOPED LEARANG. IT THE SHALL THE AFFORMED BY AN INVESTIGATION AND CAUSED DE THE SHALL THE AFFORMED BY ALCOMBERS AND WAS CAUSED DE THE STATESTAL WAS TOO MARB, A CONCITION WHICH BOES NOT RESPOND MELL TO BEFORMETION A CAUSED BY MADE OF MESONS WELL TO BEFORMETION A | KOUT PROCEDUME, THE BOTH LIFE LEASED WAS LEASED WAS LESS A CONSTITUTE WHICH | DOTER ACTVITATION ALLO               | ATOR ABBY<br>MABLES AND<br>ESPOND MEL | DEVELOPED LEAAAG<br>NAS CAUSED DE 7                                                                                     |        |
|                                                                                |                                                                                                                                                                                                                                                                                                                                                                              |                                                                             |                                      |                                       |                                                                                                                         |        |

GENERAL DYNAMICS CONVAIR BIVISION

18 108 1866

í

| CONTICITY ACTION-ING RELIABILITY FRIUME AMMITTE GROUP INCOME FOR VENOR HAR A-SP-GA-3009 OF THE CAUSE OF FAIL OF O SINA. MICE A SP-GA-3009 OF THE CAUSE OF FAIL OF O SINA. MICE AND EXCENDED ACTION OF MAINTAINING CLOSES WALLES TO PHE CAUSE OF FAIL OF O SINA. MICE ASP-GA-3339 FOR SP-GA-3339 FOR | 3737EN<br>808-8781EN                                                | TEST/REPORT NUMBER<br>FAILED COMPONENT NAME                                                                     | DIF DATA BOURCE<br>PART NUMBER               | VENICLE BITE PRE           | \$17E<br>71ME 01F | PRI VENDOR NAME<br>OTH VENDOR PART NO | NAME<br>ART NO        | <i></i> |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|----------------------------------------------|----------------------------|-------------------|---------------------------------------|-----------------------|---------|
| A-BR-04-3339F ACTUATOR ACTUATOR E-SERVICITATIONDUBING CHECKOUT, THE ACTUATOR PAILED TO CHEMATE CORRECTLY. THE E-SERVICITATIONDUBING CHECKOUT, THE ACTUATOR PAILED TO CHEMATE CORRECTLY. THE E-SERVICITATIONDUBING CHECKOUT, THE ACTUATOR PAILED TO CHEMATE STRIPLASS OF THE 11-17 EVISTS WHERE BY THE HIDRAULE TAKE BUBBLES WERE HOTICED IN THE PLONETER STRIPLASS OF THE 11-17 EVISTS WHERE BY THE BUBBLES IN BIGHTELASS ORIGINATED IN OTHER COMPOSENT AND NICES INTERNAL-GAS PRECAMEE BY GAS BUBBLES IN BIGHTELASS ORIGINATED IN OTHER COMPOSENT AND NICES INTERNAL CHEMATION- BOONTER NO. 1 YAM/HOLL FEED BACK HOTICATED AN EXTENDED MALLING ACTUATOR ACTUATOR ASSEMBLY.  C-FAIL DUBING CHEMATION- BOONTER NO. 1 YAM/HOLL FEED BACK HOTICATED AN EXTENDED MALLING ACTUATOR ACTUATOR AND AUTOPILOT BEAUTIES.  CT-HOME.  CT-ROWONIER RESCHEDULED. BIRTEN AND COMPOSITE RE-TESTING REQUIRES.  CT-HOME.  CT-HOME.  CT-HOME.  CT-HOME.  CT-HOME.  CT-HOME.  CT-ROWONIER RESCHEDULED. BIRTEN AND COMPOSITE RE-TESTING REQUIRES.  CT-HOME.  CHARLES AND CHARLES AND CHARLAND.  CT-HOME.  CT-HO       | MRECTIVE ACTION-TO<br>E AND REQUESTED A<br>O RIMG SELECTION         | ME RELIABILITY FAILUME ANALYSIS GROUP<br>MORE RIGID INSPECTION OF O RINGS. TH<br>IS IN EFFECT (APRIL 25, 1963). | ENFORMET THE VENDOR                          | (RAR A-BP-D<br>OF MAINTAIN | 4-36081 C         | F THE CAUSE                           | O FAI                 | 7       |
| CE-CUT OF SPECIFICATION-DUBING CACEGOUT. THE ACTUATOR FAILED TO OPERATE CORRECTLY. THE FAILURE MAS NOT CE SCANO-CYLINGER ASSENGLY NET ALL REGUIND PROFOMANCE CRITERIA.  ACTION-NOW.  ACTION-NOW.  ACTION-NOW.  ACTION-NOW.  ACTION-NOW.  ACTION-NO FAILURE-GOAR ADMILES THE SIGNIFICATION OF THE MYDIALIC PARMYNET LELY FAR BUSHES AND SIGNIFICATION OF THE MYDIALIC PARMYNET LELY FAILURE-GOAR AND MIGRATED TO MEU.  ACTION-NO FAILURE-GOAL ADVISED FIELD SCAVICE PERSONNEL TO EXAMINE SYSTEM ACCUMULATOR FOR INTERNAL GAS LE  ACTION-NO FAILURE-GOAL ADVISED FIELD SCAVICE PERSONNEL TO EXAMINE SYSTEM ACCUMULATOR FOR INTERNAL GAS LE  ACTION-NO FAILURE-GOAL ADVISED FIELD SCAVICE PERSONNEL TO EXAMINE SYSTEM ACCUMULATOR FOR INTERNAL GAS LE  ACTION-NO FAILURE GOAL OF THE STANDAL FEED SACK INDICATED AN EXTENDED MALLING PERSON ASSEMBLY.  ACTION-GENERAL CACUATION ASSEMBLY.  CT-NOCK.  ECT-COMPOSITE RESCRECULED, SYSTEM AND COMPOSITE RETENDED.  ACTION-GENERAL PROBALLE ACTUATOR AND AUTOFILDS REND CAMINED.  ACTION-GENERAL PROBALLE ACTUATOR AND AUTOFILDS REND CAMINED.  ACTION-GENERAL PROBALLE ACTUATOR AND AUTOFILDS REND CAMINED.  ACTION-GENERAL PROBALLE ACTUATOR AND AUTOFILDS REND CAMINETER.  BESSED  ACTION-NO. FAILURE ASSEMBLY  BESSED  ACTION-NO. FAILURE ACTUATOR AND AUTOFILDS REND CAMINETER.  BESSED  ACTION-NO. FAILURE ASSEMBLY  BESSED  ACTION-NO. FAILURE ACTUATOR AND AUTOFILDS REND CAMINETER.  ACTION-NO. FAILURE ASSEMBLY  BESSED  ACTION-NO. FAILURE ACTUATOR AND AUTOFILDS REND CAMINETER.  ACTION-NO. FAILURE ASSEMBLY  BESSED  ACTION-NO. FAILURE ACTUATOR AND AUTOFILDS REND CAMINETER.  ACTION-NO. FAILURE ASSEMBLY  BESSED  ACTION-NO. FAILURE ACTUATOR AND AUTOFILDS REND CAMINETER.  ACTION-NO. FAILURE ASSEMBLY  BESSED  ACTION-NO. FAILURE ACTUATOR AND AUTOFILDS REND CAMINETER.  BESSED  | AULIC-A/B                                                           | A-88-04-3538F<br>ACTUATOR                                                                                       | FAR<br>27-00 180-9                           | 99¢<br>681022              | MALKER            | YES HYDRAULI<br>NO ARCH<br>104700-6   | C ALBE                | •       |
| A-98-10-139F  BYOSTER HTDRAULIC TAME  E7-08331-3  BYOSTER HTDRAULIC TAME  E7-08331-3  BYOSTER HTDRAULIC TAME  E7-08331-3  BYOSTER HTDRAULIC PUMPINE  LLITT E71313 WHERE HTDRAULIC PUMPINE  LLITT E71313 WHERE BY 448 BUBILES HERE HOTICED IN THE FLOMETER SCHITCHARD HIGHAID TO HPU.  ACTION-NO FAILURE-60/C ADVISED FIELD SERVICE PERSONNEL TO EXAMINE SYSTEM ACCUMULATOR FOR INTERNAL 648 LE  FFAZE-0071/FC-CO-01-0008-002  COMPOSITE-FACTORY E30D  FFAZE-0071/FC-CO-01-0008-002  COMPOSITE-FACTORY E30D  FFAZE-0071/FC-CO-01-0008-002  COMPOSITE-FACTORY E30D  FFAZE-0071/FC-CO-01-0008-002  COMPOSITE PERSONNELINE HERIOD AT STABIN  ACTUALOR  COMPOSITE RESCHEDUED, SYSTEM AND COMPOSITE RE-TESTING RESUMED,  ACTION-REPLACE HYDRAULIC ACTUATION AND AUTOFILOT SERVO CANISTER,  ACTUATOR ASSEMBLY  E7-08550-7  BESON  FAXE  BOOT FFAZE  FAXE  FAX | FAILURE MODE-OUT OF<br>OMFIRMED. THE MERNO-O<br>CORRECTIVE ACTION-M | SPECIFICATION, -DURING CNECKOUT, THE CYLINGER ASSENDET HET ALL REQUIRED PROME.                                  | ACTUATOR FAILED TO OP<br>RFORMANCE CRITERIA. | EAATE CORRE                | C1L7. TM          | Patrue ma                             | 2                     |         |
| E-:EAR-INTERMAL-GAS PRECHARGE BURBLES MENE HOTICED IN THE FLOMETER STEMTGLASS OF THE HTDRAULIC PUMPTNS ILLITY EVISTS WHERE BY GAS BURBLES IN SIGHTGLASS ORIGINATED IN OTHER CONFORMY AND MIGRATED TO HPU.  ACTION-NO FAILURE-GO/C ADVISED FIELD SERVICE PERSONNEL TO EXAMINE SYSTEM ACCUMULATOR FOR INTERNAL GAS LE  ACTION-NO FAILURE-GO/C ADVISED FIELD SERVICE PERSONNEL TO EXAMINE SYSTEM ACCUMULATOR FOR INTERNAL GAS LE  ACTION-NO FAILURE-GO/C ADVISED FIELD SERVICE PERSONNEL TO EXAMINE SYSTEM ACCUMULATOR FOR INTERNAL GAS LE  BY AND ALTHOUGH GASENELY.  CI-NOME.  CCI-NOME.  CCI | HIDRAULTC-A/B                                                       | A-98-10-159F<br>BCOSTER HTDRAULIC TANK                                                                          | FAR<br>27-04551-3                            | 66F<br>621019              | MUKER             | YES BENBOW<br>NO SPESE                |                       |         |
| ACTION-NO FAILURE-60/C ADVISED FIELD SERVICE PERSONNEL TO ENABLINE STATEM ACCUMULATOR FOR INTERNAL 648 LE  ACTION-NO FAILURE-60/C ADVISED FIELD SERVICE PERSONNEL TO ENABLE ACCUMULATOR FOR INTERNAL 648 LE  ACTION-REALIZATION SOON FROM 1 TAM/MOLL FEED BACK INDICATED AN EXTENDED MALLING PERSON AT STABIN ALTH PERSONNEL ACTUATOR ASSEMBLY.  CT-MOME.  CCT-MOME.  CCT-M | NILUKE MODE-JEAK-II<br>IT. POASIBILITY EM                           | NTERMAL-GAS PRECHARGE BUBBLES WERE MG<br>1818 MHERE BY GAS BUBBLES IN BIGHTGLA                                  | HICED IN THE PLOMETE.                        | r sightelas<br>r copogent  | A OF THE AND MISS | HTDKAULIC PU<br>ATED TO HPU.          | ž                     |         |
| ### ### ### ##########################                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | CORRECTIVE ACTION-NG                                                | O FAILURE-60/C ADVISED FIELD SERVICE                                                                            | PERSONNEL TO EXAMINE                         | BYBTEH ACCU                | HULATOR P         | OR INTERNAL                           | <b>3</b> 7 <b>819</b> |         |
| JILME MODE-FAIL DURING CREATION. BOOSTER NO. 1 YAM/MOLL FEED BACK INDICATED AN EXTENDED MALLING PERIOD AT STABIN UNE TO A FAULTY HYDRAULIC ACTUATOR ASSEMBLY.  STEN EFFECT-MONE.  MICLE EFFECT-COMPOSITE RESCHEDULED. SYSTEM AND COMPOSITE RE-TESTING REGUINED.  MARECTIVE ACTION-REPLACE HYDRAULIC ACTUATOR AND AUTOFILOT BERVO CANISTER.  AULIC-A/B LP-99-04-3504-F FAR 85500 FACTORY YES HYD. RESEARCH AULIC-A/B ACTUATOR ASSEMBLY 27-00550-7 SE1016 NO 104700-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | HTORALLIC-A/B                                                       | J X42-0071/FC-CO-01-0004-002<br>JCTUATOR                                                                        | COMPOSITE-FACTORY<br>E7-04350-7              | ł                          |                   | YES HYDRAULS<br>YES ARCH<br>104700-1  | CRESC                 | *       |
| ECT-MOME.  ECT-COMPOSITE RESCHEDULED, SYSTEM AND COMPOSITE RE-TESTING RESULRED.  ACTION-REPLACE HYDRAULIC ACTUATOR AND AUTOFILOT BERNO CANISTES.  LP-88-04-3504-F FAR 2500 FACTORY  ACTUATOR ASSEMBLY 27-08550-7 981018                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | NILURE MODE-FASE DI                                                 | URING CPERATION. BOOSTER NO. 1 YAM/RO<br>DRAULIC ACTUATOR ASSEMBLY.                                             | LL PEED BACK INDICATE                        | D AM EXTEND                | ED MULLIN         | A PERIOD AT                           | 87A61M                |         |
| ACTION-REPLACE HYDRALLIC ACTUATOR AND COMPOSITE RE-TESTING RESUIRED.  ACTION-REPLACE HYDRALLIC ACTUATOR AND AUTOFILOT BERVO CANISTER.  LD-88-04-3304-F FAR 83-00 FACTORY ACTUATOR ASSEMBLY 87-08550-7 981016                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | BYBIEN EFFECT-NONE.                                                 |                                                                                                                 |                                              |                            |                   |                                       |                       |         |
| ACTION-REPLACE HYDRAULIC ACTUATOR AND AUTOPILOT BERNO CANIBTER.  UP-99-04-3504-F FAR 85-09 ACTUATOR ABBENOLY 87-08550-7 981016                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | HICE EFFECT-COM                                                     | OBLIE RESCHEDULED. BYBIEN AND COMPOSE                                                                           | TE RE-TESTING REGULAE                        | ó                          |                   |                                       |                       |         |
| LP-98-04-3304-F FAR 2500 FACTORY<br>ACTUATOR ABSCHOLY 27-08550-7 62:016                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | MRECTIVE ACTION-48                                                  | EPLACE MYDRAULIC ACTUATOR AND AUTOFIL                                                                           | OT BERVO CANIBIER.                           |                            |                   |                                       |                       |         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | HTDRAULIC-A/B<br>BCOSTER                                            | LP-88-04-3304-F<br>ACTUATOR ABBENBLY                                                                            | FAR<br>27-0850-7                             | :                          | PACTORY           | YES HTD. RES                          | EARCH                 | •       |

FAILURE MOSS - ERRATIC OPERATION: CHAMÉE IN RATE OF EHEINE MOVEMENT MMEN METURNING TO MULL POSITION DURING COMPOSITION METURNING TO MULL POSITION DURING COMPOSITION ENTRAPPED AIR IN STREEM, GREAT IC BERYOVALYE.

CONVAIR BIVIBION

11 JUN 1888

•

Í

|                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                          |                                                                            |                                      |                                    | L_           | •                                           | _      |
|-------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|--------------------------------------|------------------------------------|--------------|---------------------------------------------|--------|
| 8-0-878 EN                                                                                | TESTARFORT MANERS FATERS CONFOMENT MANE                                                                                                                                                                                                                                                                                                                                                  | DIP DATA BOUNCE<br>PART NUMBER                                             | MENICLE BIT TIME DIF OTH             | 11 ME 017                          |              | WENDOR PART NO                              | ·      |
| OSTECTIVE ACTION ALL                                                                      | OH VIE 3E400AVEAE 1048AE HOLOGS RIFE 9E 1                                                                                                                                                                                                                                                                                                                                                | HOTORS WILL BE IMAPECTED FOR CONTAMINATION IN THE AMEA OF THE TORSUE HOTOR | 11 80 18 70                          | E AREA O                           | ¥.           | ORBUE HOTOR                                 | •• 720 |
| COVER STARTING 9/1/64. HTDRAULIC-A/8 DOUSTER                                              | A-89-04-3978F<br>A-89-04-3978F                                                                                                                                                                                                                                                                                                                                                           | FAR<br>87-06350-7                                                          | 1476                                 | PACTORY                            | YES H        | VES HYDRAULIC RESE<br>NO ARCH<br>104700-1   | ***    |
| FAILURE HOCE-LEAN-EXTELLATOR DURING A HYDRAULI<br>LUME MAS HOT COMFIRMED AN THE ALLOMBLE. | FAILURE HOCE-LEAR-EXTERNAL-THE BOOGNER MENYO CYLINDER DEVELOPED A LEAR FRON THE BLEEDFORT AT THE ROD END OF THE ACT<br>LATON DURING A HYDRALE C SYSTEM FILL AND BLEED PROCEDURE. THE LEAKAGE RATE WAS ONE DROP PER HIMVIE. THE REPORTED FAS<br>LUNE WAS NOT COMPIRMED DURING FAILURE AMALYSIB. THE BLIGHT LEAKAGE PRODUCED IN THE HYDRALLICS LABORATORY WAS LESS TH<br>AN THE ALLOMABLE. | WELCHED A LEAR FRON TW<br>THE LEAKAGE RATE WAS<br>T LEAKAGE PRODUCED IN    | C BLEDPOI<br>OC BROF I<br>THE HYDRAL | T AT THE<br>MER HINUT<br>ALICO LAD | # 700 E      | D OF THE ACT<br>REPORTED FAS<br>WAS LESS TH |        |
| CORRECTIVE ACTION-NO CO                                                                   | ON-NO CORRECTIVE ACTIONFAILURE NOT CONTINUED.                                                                                                                                                                                                                                                                                                                                            | 1 <del>4</del> 10.                                                         |                                      |                                    |              |                                             |        |
| HTDRAULIC-A/B<br>BODGTER                                                                  | A-9P-04-4003F<br>ACTUATOR Q-81M6                                                                                                                                                                                                                                                                                                                                                         | FAR<br>27-06330-0                                                          | <b>46</b> 1 <b>20</b>                | <b>8</b>                           | 10 A         | TES HYDRALLIC RESE<br>NO ARCH<br>104700-9   | •••    |
| PAILURE POSE-LEAK EXTER<br>. PAILURE DAS ATTAIGUTED<br>DETECTED DURING FAILURE            | FAILURE MOCE-LEAR EXTERNAL. O-RING MEAL WAS DANNEED BY EXCESSIVE METALLIC PARTICLE CONTAMINATION IN MUDALLIC FLUID<br>FAILURE WAS ATTRIBUTED TO DANNEED THMEADS MEMALTING FROM INFROMEN ASSEMBLY IN THE PIELD. NO MOTICEABLE LEARANE WAS<br>DETECTED DURING FAILURE AMALTSIS.                                                                                                            | RESSIVE METALLIC PART<br>INTROPER ASSEMLY IN                               | ICLE CONTA                           | Males Tion<br>6. No No.            | IN MY        | MAULIC FLUID<br>: LEAKAGE MAD               |        |
| CORPLETE ACTION - PORTION                                                                 | ON-PARCAUTIONARY HOTE WAS ADDED TO OPERATIONAL TREMMICAL ORDERS.                                                                                                                                                                                                                                                                                                                         | IONAL TECHNICAL CHOEST                                                     |                                      |                                    |              |                                             |        |
| HTERALLIC-A/B                                                                             | A-89-04-4004F<br>ACTUATOR 310TOR                                                                                                                                                                                                                                                                                                                                                         | FAR<br>27-08550-7                                                          | 411                                  | PACTORY                            | 5 d<br>5 3 3 | ME AVENALALIC RESE<br>ME AACH<br>194700-1   |        |
| FAILURE MODE-STRUCTURAL                                                                   | FAILUKE MIDE-STRUCTURAL. LOW FREQUENCY ONCILLATION DURING FINAL CHECK OUT OF MISSILE, PLAPPER WAS POORLY BRAZED TO<br>ARMIUNE OF TOKSUE MOTOR.                                                                                                                                                                                                                                           | FINAL CACK OUT OF A                                                        | I DICE. A                            | <b>9</b> 8364                      | <b>1</b>     | .T BRAZEB TO                                |        |
| CURRECTIVE ACTION-NEID                                                                    | ON-VELDOR INSTITUTED IMPROVED TENECRATURE CONTROL OF                                                                                                                                                                                                                                                                                                                                     | CONTROL OF BRAZING PROCESS.                                                | OC 188.                              |                                    |              |                                             |        |
| HTD44.4.1C-4/0                                                                            | A-08-04-1030F<br>ACTUATOR                                                                                                                                                                                                                                                                                                                                                                | FAR<br>27-0880-0                                                           | 116                                  | MLACA                              | 50           | VER HYDRAULIC REBE<br>NO ARCH<br>104700-0   |        |
| FAILURE HOOE-LEAR ESTE                                                                    | AR ENTERNAL-CONTOMENT WAS RELECTED FOR LEARANG AT PISTON ROD END.                                                                                                                                                                                                                                                                                                                        | AKAME AT PISTON ROD EN                                                     | ė                                    |                                    |              |                                             |        |
| COMPRESSION ACTIONS                                                                       | CHE MO FAILUME-LEARAGE HOT DUTLICATED IN EXTENSIVE FUNCTIONAL TERTIMS. O-RING MATERIAL ACCEPTABLE: AN                                                                                                                                                                                                                                                                                    | REMAINE FUNCTIONAL TE                                                      | 121 IB. 9.                           | 1 1 1                              | Alat k       | CCFTABLE, AN                                |        |

GENERAL DYNAMICS CONVAIR DIVISION

15 JUN 1968

| 9941 FOC 61                                                                                       | DIFFICULTIER REVIEW-HTDRAULIC STRTEM-AIRBORNE                                                                                                                                                                 | AULIC SYSTEM-AIRBORE                                                                                  | ¥                                       |                 |          |                                           |      |
|---------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------|-----------------|----------|-------------------------------------------|------|
| SUB-STEEN                                                                                         | TEST/REPORT NUMBER<br>FAILED COMPONENT NAME                                                                                                                                                                   | DIF DATA BOURCE<br>PART NUMBER                                                                        | VEHICLE BITE PRI                        | 11 E 01F        | 2 5      | VENDOR MANE<br>VENDOR PART NO             |      |
| D DIMENSIONAL CHECKS OF O                                                                         | O-RIMG VERIFIED ACCEPTABILITY.                                                                                                                                                                                |                                                                                                       |                                         |                 | 1        |                                           | ***  |
| HTD44ULIC-A/B                                                                                     | 9P-8J-04-4084-F<br>ACTUATOR                                                                                                                                                                                   | FAR<br>87-0850-7                                                                                      | 13:0                                    | FACTORY         | ÷ 2      | TES HTDRAULIC RESC<br>NO ARCH<br>104700-1 |      |
| FALLINE MODE-ERRATIC OPER<br>ED DURING EXTENSIVE LABORE                                           | FAILUME MODE-ERRATIC CHERAI, CM-ACTUATOR SHOWED INTERKITTENT GAIN NURING FATEUENCY RESPONSE TEST-FAILURE NOT CONFIRM<br>ED DURING EXTENSIVE LABORATORY TESTING, CAUSE OF FAILURE NOT DETERMINED.              | gain puring fatolge<br>determined.                                                                    | KV RESPON                               | aC 1687-        | PAILU    | 16 NOT CONFIRM                            |      |
| CORRECTIVE ACTION-MONE-C                                                                          | CORRECTIVE ACTION-MOME-CAUSE OF FAILURE NOT DETERMINED OF FAILURE AMALYSIS.                                                                                                                                   | AILURE ANALYBIB.                                                                                      |                                         |                 |          |                                           |      |
| HTDRAULIC-A/B<br>BOOSTER                                                                          | HE-SB-10-136F<br>HYDRAULIC ACCUMULATOR, O-RING                                                                                                                                                                | FAR<br>27-06554-5                                                                                     | 11 PD<br>620907                         | £78             | 5 Q      | TES PEACOCK<br>NO 51310-3                 | 5657 |
| FAILURE MODE-CONTANIMATION. 645<br>ING THE INTERMEDIATE UPRING SEAL.                              | FAILURE MODE-CONTAHINATION. 643 PRECHARGE DROPPED OVES, A PERIOD OF BEVERAL DATA. THIS WAS CAUSED BY PAFIICLES BRIDG<br>M6 THE INTERNEDIATE UPRING SEAL.                                                      | RICO OF BEVERAL DAVE                                                                                  | - 4 - 4 - 4 - 4 - 4 - 4 - 4 - 4 - 4 - 4 | • CAUSEB        | è        | FTCLES BRIDG                              |      |
| CORRECTIVE ACTION-CONVALI<br>DRAULIC STSTER ON 1130 18                                            | CORECTIVE ACTION-CONVAIR INFORMED RESPONSIBLE PERBONNEL AT AMR THAT MECESSARY CMECKS BE MADE TO ASSURE THAT THE MY<br>DANULIC SYSTEM ON 1130 IS NOT HARBORING ANY CONTAMINATION AS FOUND IN THIS FAILED UNIT. | AME THAT NECESSARY<br>FOLAD IN THIS FAILE                                                             | CMECKS DE<br>ID UNIT.                   | MADE TO         | A89U     | E 1.4AT THE HT                            |      |
| HTDRAIL IC-A/B<br>BOOSTER                                                                         | A-94-04-4078F<br>ACTUATOR                                                                                                                                                                                     | FAR<br>27-08550-9                                                                                     | \$3F<br>\$20907                         | FACTORY         | VE. 1    | YES MYDRAULIC RESE<br>NO ARCH<br>104700-8 | •    |
| FAILURE MODE-OUT OF TOLES                                                                         | FAILWE MODE-OUT OF TOLEPANCE-THE SEAND VALVE MALL VOLTAGE TOO HIGH BURING MAPCHE CHICKOUT.                                                                                                                    | TOO MIGH DURING NAPO                                                                                  | HE CHICKO                               |                 |          |                                           |      |
| CORRECTIVE ACTION-A STUDY IS BEING MADE IF<br>OF SIGNALS FROM INDIVIDUAL SERVOAMPLIFIERS.         |                                                                                                                                                                                                               | A POSSIBLE MALL SHIFT IS CAUSED BY DIFFERENCES IN<br>(IDC OR A16) 60/C LATER HODIFIED SERVONMLIFIERS. | PFERENCE<br>WOAMPLIF                    | 118 SER<br>ERS. | 9        | VE RECEPTION                              |      |
| MTDEA.4.1C-A/8<br>BCOSTER                                                                         | A-8R-04-4028F<br>ACTUATOR/O-21MG                                                                                                                                                                              | PAR<br>27-06580-9                                                                                     | 6.57<br>6.20907                         | MIRER           | ÷ 9      | VES HYDAAULIC RESE<br>NO ARCH<br>104700-8 |      |
| PAILURE MODE-LEAK EXTERNAL-<br>O USE OF SUBSTANDARD O-KING.                                       | FAILURE MODE-LEAR EXTERNAL-COMPONENT MAS REJECTED FOR EXCESSIVE LEARABE AROUND PISTON ACD. FAILURE MAS ATTRIBUTED T<br>1 USE OF SUBSTANDARD O-KING.                                                           | NY LEARAGE AROUND                                                                                     | P18704 #G                               | . *AILU         | <u> </u> | ATTAIBUTED T                              |      |
| CORRECTIVE ACTION-HYDRAULIC RESEARCH INSTITUTE<br>ATOR ASSEMBLE. PRIOR TO CORRECTIVE ACTION DATE. | COMPECTIVE ACTION-HYDRAULIC RESEARCH INSTITUTED 100 PERCENT INSPECTION OF O-RIMSS EPPECTIVE JULY 18, 1962 THIS ACTU                                                                                           | INSPECTION OF GAIN                                                                                    | SA EFFECT                               | W JALY          |          | DGE THIS ACTU                             |      |

GENERAL BINGHICE CONVAIR DIVISION

19 .W 1966

|                                                                                 | DIFFICAL TIES REVIEW-NYDRAULIC BYSTEM-AIRDORNE                                                                                                                                                                                                                                                                                                                 | DRAULIC BYBIEN-AIRBO                                                                                                                                                              | Ä                                         |                      |                         |                                                   |   |
|---------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|----------------------|-------------------------|---------------------------------------------------|---|
| 87.8.1E#<br>81.6 - 87.8.1E#                                                     | TESTARFORT NUMBER<br>FAILEG COMPONENT NAME                                                                                                                                                                                                                                                                                                                     | DIF DATA SOUNCE<br>PART HUMBER                                                                                                                                                    | WENICLE<br>DATE DIF                       | 111E 01F             | 1 0 N                   | WENTELE BITE PRI VENDOR MANE                      |   |
| MTDRAUE IC-A/B                                                                  | A-SH-10-148F<br>BOOSTER HTDSALLIC ACCUMULATOR                                                                                                                                                                                                                                                                                                                  | FAR<br>E7-06554-3                                                                                                                                                                 | 32 - D                                    | AL 748               | ž š                     | NES PEACOCK<br>NO 81810-36                        |   |
| FAILURE MODE-LEAK-11 E AND CHEATING A MINE                                      | PAILUME MODE-LEAK-INIERMAL, HYDRAUKIC GIL MAB FOUND CHI IME PMEUMATIC BIGZ POBBIBLY DUE TO LOBB OF PRECHARGE PRESSUM<br>E amo cheating a mism difterential Pressume across the internediate piston prom the mydraukic bide to the Philumatic<br>Bide.                                                                                                          | E PAGUMATIC BIGZ POB<br>ENEGLATE PLBTON PRO                                                                                                                                       | BIBLY DUE 1                               | 0 1088 0             | 7 o                     | CHARGE PRESSUR<br>THE PHEUMATIC                   |   |
| CORNECTIVE ACTION-P.                                                            | CONTECTIVE ACTION-FAILURE NOT COMPTRAED. THE ACCUMULATOR WAS NOT TESTED BECAUSE OF PIELD DISASSEMBLY. BY THE SOF BOS<br>FIELD PERSONNEL MERE INFORMED NOT TO DISASSEMBLE FIELDS BEING RETURNED FOR PAILURE ANALYSIS.                                                                                                                                           | MA NOT TESTED SECAULING RETURNED FOR FAL                                                                                                                                          | SE OF FIELD                               | 0 01 84 8 SE         | Ž.                      | BY TWR SOFECE                                     |   |
| HTGRAULIC-A/B                                                                   | A-68-04-3380F<br>ACTUATOR                                                                                                                                                                                                                                                                                                                                      | FAR<br>E7-06330-7                                                                                                                                                                 | 1430                                      | PACTORY              | 28                      | YES HYDRAULIC RESE<br>ND ARCH<br>104700-1         | • |
| FAILURE MODE-OUT OF<br>1. 825-0385, AMC 110-<br>UNSTABLE CAPALITAMEL            | FAILUKE HOEE-OUT OF TOLEANCE, DURING AUTOPILOT BYBIEN CHECKOUT THE BOOSTER BERNO CYLINDER ABSENDLIES (SVM BE7-0833), 1835-0355, AND 110-1853) VIBRATED EKERSTWELY, REPORTED FAILURES WERE CONTINNED AND NERE DUE TO THE ELISTENCE OF AN UNSTABLE CAPALITANCE-INDUCTANCE TANG-CIRCUIT BETNEEN THE BERNOMINELFIER QUIPUT AND THE BERNO VALUE TORBUE HOTOR COIL.  | CCAUNT THE BOOSTER BE<br>MILUMES WERE CONFIRM<br>MERVOAMPLIFIER GUIPU                                                                                                             | ERVO CYLING<br>ED AND NERE<br>T AND THE B | CR ABSEN             | 8-163<br>746 6<br>76 70 | (SVN BOT-DB31<br>RISTENCE OF AN<br>ROLE NOTOR COL |   |
| CORRECTIVE ACTION-ES SEMBLIES WHICH EXHIB INCER ASSEMBLIES UNDI                 | CORECTIVE ACTION-CO/C REVIENCD THE WENDOW TEST EQUIPMENT AND PROYEDUMES IN NOWENDER 1862 SO THAT SERVO CTLINDER AS<br>Skholies which exhibit oscillation charaferistics will be caught before shipment to 60/6, 60/6 raced all berno ctl<br>Incer assembles under surveillance to evaluate the extent of this problem and to determine if additional action is | AND PROYEDUATE IN NOVEMBER 1888 BO THAT SERVO CTLINDER AS<br>CAUGHT SEFORE BAINENT TO SOPE, SOPE PLACED ALL SERVO CTL<br>OF THIS PROSLEM AND TO DETERMINE IF ADDITIONAL ACTION IS | OVENERA 186<br>ENT TO GO/C<br>TO DETERMI  | 2 20 THA<br>. 60/C P | T BER<br>LACED<br>DITIO | VO CTLINGER AB<br>ALL BERVO CTL<br>NAL ACTICN 18  |   |
| HTDRAULIC-A/B<br>BODSTER                                                        | A-94-10-128F<br>HTDRAULIC PLEX HOSE                                                                                                                                                                                                                                                                                                                            | FAR<br>87-0000-47                                                                                                                                                                 | 77F                                       | MALER                | , Q                     | 7ES AESTS TO FLEX<br>NO AESES-47                  | • |
| FAILURE MODE-LEAR EXTERMAL, HYDRAU COMPOMENT ALTMOUGH NOT IDENTIFIED.           | FAILUME MODE-LEAK EKTERMAL. HYDRAULIE DIL LEAKED AT TME BLEEVE JOINTB. LEARAGE MAB BETERNIMAD TO BE FROM BONE OTMER<br>Component although mot identified.                                                                                                                                                                                                      | LEVE JOINTS. LEARAGE                                                                                                                                                              | 1 ws 86764                                | <b>11.00</b> 10      | ¥                       | RON BONE OTHER                                    |   |
| CORRECTIVE ACTION-FI                                                            | CORECTIVE ACTION-FAILURE NOT CONTRHED. GD/C ADVIDAD PERSONNEL THAT IN PRODUENS OF THIS TYPE THE WOSE SE WIPED CLE<br>An and se watched closely to assure that the mose is actually learing before rejecting it.                                                                                                                                                | LOSEL THAT IN PROBLEY LEARING BEFORE R                                                                                                                                            | ENS OF THIS<br>EJECTING IT                | 17 Jeyr 1            | 8                       | <b>E BE</b> WIPED CLE                             |   |
| HTDRAUL   C-A/B                                                                 | A-84-04-8389F<br>ACTUATOR/VALVE-8ERVO                                                                                                                                                                                                                                                                                                                          | FAR<br>E7-06850-0                                                                                                                                                                 | ****                                      | W.AC.                | ដូទ                     | TES MTDRAULIC RESE<br>NO ARCH<br>104700-8         |   |
| FAILURE MOSE-OUT OF<br>E MULL POSITION DUSTS<br>19-ED &T THE PAILURE<br>11-WIE. | PAILUME MOSE-OUT OF TOLERANCE-IT MAS REPORTED THAT THE EMAINE OPERATED ST THIS SEXMOCTLINDER FAILED TO RETURN TO THE NULL POSITION DURING MARCHE OPERATION, THE PAILUME WAS CONTINUED. THE CAUSE OF THE OUT OF TOLERANCE WAS NOT RATABLE DAT THE PAILUME MARCHE WAS OUT-OF-TOLERANCE BUT COULD NOT MARE CAUSED THE ORIGINAL PAILUME.                           | SHE OPERATED BY THE DATHER CAUSE OUT-OF-TOLERANCE BUT                                                                                                                             | B REMOCYLI<br>OF THE OUT<br>COALD HOT     | NOCA TAI             | A HCE                   | O RETURN TO THE WAS NOT RETABL. HE ORISINAL FA    |   |

GENERAL DYNAHICS CONVAIR DIVISION

115 JUN 1866

DIFFICULTIES REVIEW-HYDRAULIC SYSTEM-AIRBOAME

FAILURE MODE-EXTERNAL LEAR. A FLUID LEAK MAS OBSERVED FROM THE BOOSTER I YAM SERVOCYLINDER ASSEMBLY BURING ROUTING. TEST DUE TO NORM AND COMPRESSED GLAND MUY O-RING. THE O-RING HAS BUBSTANDARD ACCORDING TO SHORE-A AND ELOHGATION TES TS.

GENERAL DYNAMICS CONVAIR DIVIBION

16 104 1886

|           |                                                                                    | DIFFICULTIES SEVIEW-MYDRAULIC SYSTEM-AIRSORME                                                                                                                                                                                                                                                                                      | RAULIC STATEM-AIRBOR                                                          | ¥                                                                            |                    |          |                                                                                                        |          |
|-----------|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|------------------------------------------------------------------------------|--------------------|----------|--------------------------------------------------------------------------------------------------------|----------|
| `         | 2727EX<br>20-372 EX                                                                | FAILED COMPONENT NAME                                                                                                                                                                                                                                                                                                              | DIF DATA BOUNCE<br>PART NUMBER                                                | VEMICLE BITE PRI<br>DATE BIF TIME BIF OTH                                    | 317E<br>71ME 01F   | 1 2 0    | VENDOR NAME<br>VENDOR PART NO                                                                          | <b>_</b> |
| <u> </u>  | CORRECTIVE ACTION-VEHOOR                                                           | ON-VENDOR INITIATED 100 PETCENT INSPECTION                                                                                                                                                                                                                                                                                         | OF AERVOCYLINDER O-RINGS.                                                     | 1168.                                                                        |                    |          |                                                                                                        | 10054    |
|           | HYDRAULIC-A/B<br>BOOS/ER                                                           | A-80-10-147-C<br>HTDRAULIC PLEK LINE                                                                                                                                                                                                                                                                                               | FAR<br>27-06562-5                                                             | 1190-0                                                                       | <b>5</b>           | ÷ 8      | YES RESISTOFLER<br>NO RESSES                                                                           |          |
|           | FAILURE MODE-LEAK-ERIERH                                                           | FAILUME MODE-LEAR-ER:ERMAL. UNIT LEAKED HYDRAULIC FLUID. ORIGIN OF LEAR NOT DETERMINED.                                                                                                                                                                                                                                            | RIGIN OF LEAK NOT DE                                                          | TERNINED.                                                                    |                    |          |                                                                                                        | <b></b>  |
|           | CORRECTIVE ACTION-NOM.                                                             | FAILURE AMALYBIS OF THIS UNIT WAS CANCELLED. MOSE WAS SCRAPPED AT SITE.                                                                                                                                                                                                                                                            | CAMCELLED. MOSE WAS                                                           | SCRAPPED A                                                                   | 7 817E.            |          |                                                                                                        |          |
| ·         | MTURAUL IC-A78<br>BODSTER                                                          | A-80-10-143F<br>HYDRAULIC PLEX MOSE                                                                                                                                                                                                                                                                                                | FAR<br>27-08571-45                                                            | 1900                                                                         | 876-A1             | ž õ      | AEROBUTP<br>664638-8-0161                                                                              | 10200    |
|           | FAILUNE MODE-LEAK-EXTERM<br>D SY THE LACK OF TOWAUE B                              | AR-EKTERMAL. HTDRAULIC OIL LERRAGE AT A PITTING DURING PERFORMANCE OF A CHECKOUT PROCEDURE MAS CAUSE<br>Torque between the socket and the Perrule.                                                                                                                                                                                 | TIM DARING PERFORM                                                            | MCE OF A C                                                                   | MECKOUT            |          | DURE WAS CAUSE                                                                                         |          |
|           | CORRECTIVE ACTION-FIELD                                                            | CORRECTIVE ACTION-FIELD PELIABILITY PERSONNEL WERE PERUESTED TO TARE NECESSARY ACTION TO DISACHIMITE PROPER TGABUÍN<br>Linformation to the Hechanics at Vandemburg air Porce Dase.                                                                                                                                                 | ED TO TAKE NECESSART                                                          | AC7108 10                                                                    | 01 84CM            | 7        | PROPER TORBUIN                                                                                         |          |
| 4 <i></i> | HYDRAIA IC-A/B<br>BODSTER                                                          | A-8R-G4-3397F<br>ACTUATOR/O-RING                                                                                                                                                                                                                                                                                                   | FAR<br>E7-06550-0                                                             | 79¢<br>4€001£                                                                | MILLER             | <u> </u> | VES HYDRALLIC RESE<br>NO ARCH<br>104700-8                                                              | •        |
|           | FAILURE MOSE-LEAR-EXTERN<br>C PRESSURE WAS BOOD PRIG.<br>ATERIAL WAS "ERT MARD. IN | AR-EXTERNAL-DURING MISSILE CHECKOUTS, LEARAGE BEVELONED FROM THE ACTUATOR PISTON SHAFT. THE MYDANALI<br>000 PSIG. THE FAILURE WAS CONFIRMED AND WAS DUE TO THE O RIMS BEAL WHICH WAS SLIGHTLY NORM AND THE WARD. THE NATERIAL MOULD NOT MEET THE MENUTERIAL MOULD NOT MEET THE MENUTERIAL MOULD NOT MEET THE MENUTERIAL            | ME BEVELOND PROH THE AC<br>DUE TO THE O ATHR BEAL<br>INDICHTS OF HIL-P-ESTER. | E ACTUATOR<br>CAL WILLOW                                                     | 918104<br>8 9 1.10 |          | . THE HYDRAULS<br>MONH AND THE N                                                                       |          |
|           | CONTECTIVE ACTION-EFFECT<br>MACHIFICATION BEFORE BETH                              | ON-EFFECTIVE 620715; ALL O-RINGS ARE SIVEN A PHYSICAL AND VISUAL INSPECTION FOR DEFECTS AT 20 POMER                                                                                                                                                                                                                                | A PHYSICAL AND VISUA<br>R ASSEMBLIES.                                         | r IMBARCTI                                                                   | \$<br>8            | rect     | B AT EU POACH                                                                                          |          |
|           | HTDRAULIC-A/B<br>BOOSTER                                                           | A-88-04-3395-F<br>ACTUATOR-SERVO CYLINDER ASSEMBLY                                                                                                                                                                                                                                                                                 | FAR<br>RY-06550-9                                                             | \$60<br>\$60<br>\$60<br>\$60<br>\$60<br>\$60<br>\$60<br>\$60<br>\$60<br>\$60 | FACTORY            | ទី ខ្    | VEB MVB. RESEARCH<br>NO 104700-9<br>104700-9                                                           |          |
|           | FAILURE MODE-CONTAMINATI<br>AGMETIC PARTICLES MERE FO<br>THE TORBUE MOTOR REABBENS | FAILUKE MOTE-CONTAMINATION. THE BOOBTER 1 ACTUATOR NO. E NOULD NOT MULL. THE TORBUE NOTOR CAP WAS REMOVED AND TWO I<br>GMETIC PARTICLES WERE FOUND BETHEEN THE MACHET POLE PIECE AND BERYOYALVE FLAPPER. THESE PARTICLES MENE REMOVED AND<br>HE TORBUE MOTOR REASSEMBLED. AFTER REASSEMBLY THE UNIT MERCHNED WITHIN SPECIFICATION. |                                                                               | CASUE MOTO<br>CA. THESE<br>SCATICH.                                          | R CAP WE           | 2 4      | THE TORGUE MOTOR CAP WAS REMOVED AND TWO M<br>PLAPPER. THESE PARTICLES MENE REMOVED AND<br>PRESENTION. |          |
| <br>E     | מפשרג על אב לסאנטי ענע<br>כשמנכנואנ מכננאיידר פנ                                   | E ACTION-ALL SERVOVALVE WILL SE INSPECIED FOR CONTANINANTS IN THE AREA OF THE TORBUE MOTOR JUST BEFORE AS                                                                                                                                                                                                                          | NTANIMANIS IN ING AN                                                          | 1. O 1.0                                                                     | PORNE H            | 8        | JUST BEFORE AB                                                                                         |          |

GENERAL DYNAMICS CONVAIR DIVISION

9901 WAT 91

COMVAIR DIVISION

| 200 200 01                                                                                | DIFFICULTIES REVIEW-HYDAAULIC SYSTEM-AIRBORNE                                                                                                                                                             | AULIC SYSTEM-AIPBOR            | ¥                   |                      |             |                                                                      |               |
|-------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|---------------------|----------------------|-------------|----------------------------------------------------------------------|---------------|
| N 1978 K<br>Bue-avanga                                                                    | TEST/REPORT NUMBER<br>FALLED COMPUNENT NAME                                                                                                                                                               | DIF DATA SOURCE<br>PART NUMBER | YEMICLE<br>DATE DIF | 317E                 | PRI VEN     | VEHICLE BITE PRI VENDOR NAME<br>DATE BIF TIME BIF OTH VENDOR LART NO |               |
| MTDHAULIC-A/B<br>BOOSTER                                                                  | SP-88-04-4088F<br>ACTUATOR ABSEMBLY                                                                                                                                                                       | FAR<br>87-00350-7              | 1400                | PACTORY              | VEP HYDRA   | HTDRAULI: RESE<br>ARCH<br>104700-1                                   | 3             |
| FAILURE HOBE-OUT OF TOLER CORRECTIVE ACTION-NOSE.                                         | OF TOLERANCE. FLED BACK VOLTAGE AT VALL WB HIGH. THE REPORTED FAILURE WAS VOT CONFIRMED.<br>NOME.                                                                                                         | B MIGH. THE REPORTE            | FAILURE             | 10x                  | COMF I RHEL | à                                                                    |               |
| HTDRAUL (C-A/B<br>BOOSTER                                                                 | A-98-04-3417-F<br>SERVOCYLINDER O-RING                                                                                                                                                                    | FAR<br>27-00350-7              | 1790<br>(2090       | E                    | VES PYDRA   | VES PYDRAULIC RESE<br>NO ARCH<br>104700-1                            |               |
| FAILURE MODE-LEAK EKIERNAL, SERVOCYLINDER F. L. THE LEAK HAS DUE TO SUB-STANDARD O-RINGS. | EXIERNAL. SERVOCYLINGER FAILED DURING PERFORMANCE TEST MICHA A LEAR DEVELOPED AROUND THE SHAFT SEA<br>: To sub-standard o-rings.                                                                          | FORMANCE TEST MADE             | LEAR DEV            | CLOPED A             | MOMO TH     | E MAFT NEA                                                           |               |
| CORRECTIVE ACTION-60/C OR                                                                 | -CO/C OBTAINED CORRECTIVE ACTION THROUGH VENDOR IND TRITIATED 100 PERCENT INSPECTION OF SERVOCYLIN                                                                                                        | ENDOR NHO INITIATED            | 100 PERCE           | Jesus Ta             | C1104 OF    | SEAVOCYLIN                                                           |               |
| HTORAULIC-A/B<br>BOOSTER                                                                  | A-99-04-3484-F<br>ACTUATOR                                                                                                                                                                                | FAR<br>27-0855-0               | 91F<br>6E0731       | FACTORY              | VES MTDR.   | YES HYDRAILIC RESE<br>NO ARCH<br>104700-9                            | 121746        |
| FAILURE MODE-OUT OF TOLER CORRECTIVE ACTION-NOME. C                                       | OF TOLERANCE, MALL WOLTAGE REPORTED OUT OF TOLERANCE.                                                                                                                                                     | TOLERANCE.                     |                     |                      |             |                                                                      |               |
| HYDRAULIC-A/B<br>BOOSIER                                                                  | A-96-04-3403F<br>ACTUATOR-O-RING                                                                                                                                                                          | FAR<br>27-08350-7              | <b>62</b> 0730      | FACTORY              | VES HYDR    | VES HYDRAULIC RESE<br>NO ARCH<br>104700-1                            | <b>887708</b> |
| FAILURE MODELLEAR EXTERNA<br>BYBIEM LEAR CHECK, MATERI<br>-RIMGB MERE SUBSTANDARD.        | EXTERNAL: SERICHALWE WAS POUND LEARING FROM THE COWER PLATE AT THE FORMAND END DURING A MIDRAULIC. NATERIAL ANALYSIS OF THE C-RINGS REMOVED FROM THE SERVOCYLINDER AND BERVOYALWE REVEALED S OF G CHOARD. | ON THE BERNOCYLII              | IT THE FOR          | MARD END<br>ERVOYALY | DURING /    | N HTDRAULIC                                                          |               |
| CORRECTIVE ACTION-VENDOR INITIATI<br>CTION MAS EFFECTIVE JULY 35 1968.                    | CORRECTIVE ACTION-VENDOR INITIATED 100 PER CENT INSPECTION OF O-RIMSS UTILIZED FOR SERVOCYLINDER ASSEMBLIES. THIS                                                                                         | 032 ITE 99418-0 20             | POR BERWO           | CTL INDEA            | 190364      | 168. THIS A                                                          |               |

GENERAL BYNAMICS CONVAIR BIVISION

15 JUN 1966

|                                                          | DIFFICULTIES REVIEW-HYDRAULIC STSTEM-AIRSCRME                                                                                                                                    | AULIC STRIEN-AIRBOR            | <b>¥</b>                               |                     |                   |                                             |   |
|----------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|----------------------------------------|---------------------|-------------------|---------------------------------------------|---|
| 3737EM<br>306-3737EM                                     | TEST/REPORT NUMBER<br>FAILED COMPOMENT NAME                                                                                                                                      | DIF DATA BOURCE<br>PART HUMBER | VEHICLE<br>Date DIF                    | BITC PRI            |                   | VENDOR HANG<br>VENDOR PART NO               |   |
| HTDRAULIC-A/B                                            | A-89-04-3403-F<br>ACTUATOR O-RING                                                                                                                                                | FAR<br>27-06550-7              | 410<br>420736                          | FACTORY             | 2 4 4             | MYDRAULIC ACSE   004100<br>ARCH<br>104700-1 | : |
| O-RIMS.  CORECTIVE ACTION-ED/C                           | IAK, EKTEMAL, EKTERNAL HYDRALLIC LEAKAGE FROM COMER PLATE AT FORMAND END BUE TO USE OF BUS-STANDARD. OF COSTAINED CORRECTION OF ALTERS.                                          | N COMEN PLATE AT POS           | 900 000                                | but to u            | 8                 | SUB-STANDARD                                |   |
| HYDRAULIC-A/B<br>BOOSTER                                 | A-91-10-133-7<br>HTRAULIC FLEX HOPE                                                                                                                                              | FAR<br>27-04600-43             | 407                                    | LINCOLN             |                   | RESINTOFLEX<br>REIEES-45                    |   |
| FAILURE MODE-LEAR EFFER                                  | AF EFFERT. HTDRAULIC OIL LEAKED MEAR FERRULE. POSSIBLY DUE TO A BAD CORRECTION.                                                                                                  | LE. POSSIBLY DAE TO            | 93<br>94<br>4                          | ÆCT108.             |                   |                                             |   |
| CORRECTIVE ACTION-FFILLIN                                | ON-FFILTHE NOT CONFINED. GO/C ADVISED COMIZANT MERSONNEL TO NOMITOR THERE HOMES DURING SYSTEM CHEC                                                                               | ZANT PERSONNEL TO HE           | ALL TOR THE                            | M HORES             | Z Z               | SYATEN CAEC                                 |   |
| MYDRAULIC-A/B<br>BODJTER                                 | A-94-10-119F<br>HYDKAULIC TANK ABSEMALT                                                                                                                                          | FAR<br>27-00551-3              | ************************************** | SCHILLIN YES BENGON | 20                | BENGOL<br>BRAS                              | 9 |
| FAILURE MOE-STPUCTURAL-AT<br>MAD REACHED 1800 PSIG. FAME | FAILURE MODE-STRUCTURAL-AT TIME OF TAME RUPTURE THE PREUMATIC BIDE OF THE TAME MAS MOT CHARGES AND THE ACCUMULATOR HAS RECHED ISSUE PSIG. TAME FAILED DUE TO OPERPRESSURIZATION. | IC BIDE OF THE TAME            | o ton san                              | AT COOMIN           | Š                 | ACCURULA TOR                                |   |
| CORRECTIVE ACTION-PAILUM                                 | CORRECTIVE ACTION-FAILURE TO BE ASCERTAINED BY SAFB INVENTIGATION TEAM.                                                                                                          | LATION TEAM.                   |                                        |                     |                   |                                             |   |
| POSTER                                                   | A-88-10-117F<br>HTDRAULICTUBEASSEMBLT,B-MUT                                                                                                                                      | PAR<br>27-05127-799            | 75F<br>040715                          | erc.                | VES CONVAIR<br>NO | MVAIR                                       | : |
| FAILURE MOCE-EXTERNAL LE<br>ROSS THREADED ON THE MANI    | FAILURE MOCE-EXTERNAL LEAR-OIL LEARAGE AT JUNCTION OF THE TUBE ABBENDLY AND MAKEPOLD FITTING. B MUT ON TWITE WAS C<br>NORD THREADED ON THE MANIFOLD FITTING CREATING LEAR.       | <b>AC</b> A346/04.7 AID INK    | Pos FIT                                | 7                   | 8 5               | 7 4 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5     |   |
| CORRECTIVE ACTION-SITE W                                 | CORRECTIVE ACTION:-517E MAS NOTIFIED LY PAILURE AND INFORMED ABOUT INSTALLATION REQUIRENTS CONTAINED IN NºS 24.198                                                               | ABOUT INSTALLATION             | RE OUT REDUCT                          | IT& CONTA           | 9                 | M 100 24.19A                                |   |

GENERAL DYNAHICS CONVAIR DIVISION

9101 NOT 41

4

|                                                                                                                                    |                                                                                                                                                                                                                                                                                        | THE STATE OF STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, S |                          |                       |                               |                                           |                                        |
|------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|-----------------------|-------------------------------|-------------------------------------------|----------------------------------------|
| 3/3/EH                                                                                                                             | TEST/REPORT HUMBER FALLED COMPONENT NAME                                                                                                                                                                                                                                               | DIF DATA BOURCE<br>PART NUMBER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | VEHICLE<br>DATE DIF      | 017E<br>71ME 01F      | PRI VEN                       | PRI VENDOR HANE<br>OTH VENDOR PART NO     |                                        |
| HTDRAULIC-A/B                                                                                                                      | A-BE-10-117F<br>HTDRAULIC MANIFOLD, B-NUT                                                                                                                                                                                                                                              | FAR<br>87-85318-11                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 786                      | 976.                  | YES CONVAIR                   | VAIR                                      | •                                      |
| FAILURE MODE-EXTERNAL<br>ROSS THREADED ON THE M                                                                                    | FAILURE MODE-EXTERNAL LEAK-GIL LEAKAGE AT JUNCTION OF THE TUBE ABBENBLY AND MANIFOLD FITTING. B MUT ON TUBING MAS C<br>1938 THREADED ON THE MANIFOLD FITTING CREATING THE LEAK.                                                                                                        | E TUBE ABBEMBLY AND M                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | ANIFOLD FI               | 711 <b>%.</b> •       | #UT 08 T                      | UBING MAS C                               | ······································ |
| CORECTIVE ACTION-317                                                                                                               | OM-SITE MAS NOTIFIED OF THIS FAILURE AND INFORMED ABOUT INSTALLATION REQUIREMENTS CONTAINED IN MPS &                                                                                                                                                                                   | INFORMED ABOUT INSTAL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | LATION RED               | UI REMENT S           | CONTAIN                       | 2                                         |                                        |
| HIDRAULIC-A/B<br>BOOSTER                                                                                                           | A-99-04-3407F<br>ACTUATOR O-RING                                                                                                                                                                                                                                                       | FAR<br>27-08550-7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 2150<br>620725           | PACTORY               | "TS HYDAL<br>MC ARCH<br>10470 | "TS MYDRAULIC RESE<br>MC ARCH<br>104700-1 |                                        |
| FAILURE MODE-LEAK EXTERNAL, THE SERVO CYI<br>OF THE SERVO VALVE DURING MISSILE CHECKO<br>RIION OF THE PLUG DURING VENDOR ASSEMBLY. | FAILURE MODE-LEAK EXTERMAL. THE SEANO CYLINDER WAS POUND TO BE LEAKING HYDRAULIC FLUID FROM THE TWO PLUE SCREWS AFT<br>OF THE SERVO VALYE DURING MISSILE CHECKOUT. THE FAILURE WAS CAUSED BY AN IMPROPERL" MOLDED O-RIMS AND IMPROPER INSE<br>TION OF THE PLUE DURING VENOOR ASSEMBLY. | TO BE LEAKING HYDRAU<br>MAS CAUSED BY AN IMPR                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | OPERL" MOL               | FROM THE<br>DED O-RIM | TAD PLUE<br>F AND IN          | SCREWS AFT<br>PROPER INSE                 |                                        |
| CORRECTIVE ACTION-THE<br>F ASSEMBLY OF THE SEAL                                                                                    | ENDOR NOTIFIED HIS PERSONNEL OF THE CAUSE OF PAILURE AND INCREASED INSPECTION SURVEILLANCE.                                                                                                                                                                                            | HE CAUSE OF PAILURE A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | ND INCREASE              | INSPEC                | 7104 4017                     | WILLANCE O                                |                                        |
| HTORAULIC-A/B<br>BOOSTER                                                                                                           | A-98-04-3407-F<br>BOOSTER ACTUATOR ASSENDLY, ALING                                                                                                                                                                                                                                     | FAR<br>6 27-08350-7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | £150<br>\$£07£\$         | PACTORY               | VES HYDA<br>NO ARCH<br>1047   | VES HYDRAULIC RESE<br>NO ARCH<br>104700-1 | 68188                                  |
| FAILURE HODE-LEAK, EN ROPERLY HOLDED O-RING                                                                                        | FAILUKE HODE-LEAK, EXTERNAL, LEAKAGE OCCURRED DUE TO SPLIT O-RING AND DISTORTED TEFLCH MAGNER RESULTING FACH AN INF<br>Roperly Holded O-Ring and infromer insertion of the Plug buring Vendor Assendly.                                                                                | IT O-RING AND DISTORT<br>UNING VENDOR ASSEMBL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | ED TECTOR 1              | A SUCA RE             | 84LTING                       | FACT AN INF                               |                                        |
| CORRECTIVE ACTION - V                                                                                                              | VENDOR INITIATED ADDITIONAL INSPECTION SURVEILLANCE DURING ASSENDLY.                                                                                                                                                                                                                   | CH SURVEILLANCE DURIN                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 6 ASSEMBLY               |                       |                               |                                           |                                        |
| M / N k a LL I C - A / B<br>BOOS I ER                                                                                              | H6-89-10-118F<br>H7DAJE,IC PUMP                                                                                                                                                                                                                                                        | FAR<br>27-08568-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 1130<br>\$20783          | PACTORY<br>71         | YES VICKERS<br>NO AA-6088     | VICKERS<br>AA-60884-R-EA                  | 63160                                  |
| FAILURE MODE-CONTANIN<br>M THE PUMP, CONCLUDED                                                                                     | FAILURE MODE-CONTANTALION-DURING PRESSURE TESTS, BRONZE CONTANTMENTS MERE POUND IN THE MYDRAULIC FLUID DRAINED FRO<br>H THE PUNY. CONCLUDED THAT CONTANTMATION MUST HAVE OCCURRED BEFORE MOUNTING ON 113D.                                                                             | BRONZE CONTANTHENTS WERE PO<br>OCCURRED BEFORE MOUNTING ON                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | FOUND IN THE<br>ON 1130- | HYDRAUL I             | C PLUID 1                     | DRAINED FRO                               |                                        |
| CORRECTIVE ACTION-8.C                                                                                                              | CORRECTIVE ACTION-8.C. MAS RESUERTED TO PEVIEW THE RECEIVING INSPECTION TECHNISUES AND RECORD KEEPING FILES.                                                                                                                                                                           | FING INSPECTION TECHN                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | OHV SONO!                | RECORD KE             |                               | <b>.</b>                                  |                                        |

GENERAL DYNAMICS CONVAIR DIVISION

13 JUN 1016

4

1

|                                     | entron in the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control   | ME VIEW MILE | UITICALIE ALVIER FICHACIL SISTER AIRECTE                           |                        |                     | -                              |                                                     | ζ-     |
|-------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|--------------------------------------------------------------------|------------------------|---------------------|--------------------------------|-----------------------------------------------------|--------|
| 87.87EX<br>84.8 - 87.87EX           | TEST/REPORT NUMBER H FAILED COMPONENT NAME                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | POER NAME    | DIF DATA SOURCE<br>PART NUMBER                                     | WHICLE<br>DATE DIF     | \$11E<br>11ME 01F   | - A O                          | SITE PRI VENDOR NAME<br>TIME DIF OTH VENDOR PART NO |        |
| HYDRAULIC-A/B                       | A-80-10-1167<br>HTDRAULIC FLUID TAME, BEAL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Ę            | 7AR<br>27-06581-3                                                  | <b>62</b> 0717         | £                   | ¥6.8                           | 8ENE OM<br>6865                                     | :      |
| FAILURE MOE-INTE                    | HERNAL LEAK-PRE-CHARGE 648 LEAKAGE ACROSS THE PISTON TO THE OIL SIDE.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 16E ACROSS   | INE PLETON TO THE OLL                                              | eine.                  |                     |                                |                                                     |        |
| CORRECTIVE, ACTION                  | ON-UNKNOWN. PAILURE HOT CONFIRMED.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | ġ            |                                                                    |                        |                     |                                |                                                     |        |
| MYDPAULIC-478                       | A-94-10-154F<br>HTDRAULIC ACCUMALATOR, O-R'NG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Q-R'&        | FAR<br>87-06534-3                                                  | 45027                  | 37E38               |                                | PEACUCK<br>\$1810-8                                 |        |
| FAILUPE MODE-LEAR                   | AR-INTERMAL-GAS PRECMANGE LEAKED FAST THE PISTON O RIMG BEAL INTO THE MYDRAULIC SIDE.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | CAST THE C   | PISTON O RING BEAL IN                                              | TO THE HT              | MAULIC .            | 3                              |                                                     |        |
| CORRECTIVE ACTION                   | ON-UNENDAM, PAILURE NOT CONTINED.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | ġ            |                                                                    |                        | ;                   |                                |                                                     |        |
| HTDRAULIC-A/B<br>BUOSTER            | A-89-04-3384F<br>ACTUATOR - SÉRVO CYLINDER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 59           | FAN<br>27-06550-9                                                  | <b>66</b> 0711         | PACTORY             | 1 Q                            | TES HYD. RESEARCH NO.                               | 997708 |
| FAILURE MILE (MIT TOURD FAILURE WAS | NT OF TOLERANCE. SERVO CYLINDER JEST, WAS IN/D FOR OUT-OF-TOLEDANCE DUMING CHECKOUT. FAILURE AMALYSIS WAS CAUSED BY INFROMER FAMAL ADJUSTMENT AT VEMBOR, THIS UNIT MAD NOT MEEN TESTED BY RECEIVING INSP. CH-ED/C REINSYATED 100 PER CENT ACCEPTANCE TESTING, REF RAR A-88-08-734 RECEIVED 18 OCTOBER 1886.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | JETHENT AT 1 | FOR OUT-OF-TOLERA<br>FENDOR, THIS UNIT MAD<br>TESTIFF, REF RAR A-9 | MCC DURILL<br>NOT BEEN | COECACO<br>TESTED B | 7. FAIL<br>7. RECE:<br>19. OCT | 141MG 1M3P.                                         |        |
|                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |              | comment the 1 BACT                                                 | Acc 701                | 5                   | 76.8                           | YES CONVAID                                         |        |
| HTJRAULIC-A7B                       | A-BO-10-114F                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |              | £7-63300-7                                                         |                        |                     | 9                              |                                                     |        |
| FAILURE MODE-167                    | FAILURE MOETURNCTURAL, OIL TEAKB PROM A BLEED BCAEEM FITTIMS, CAUBED BY ENCESSING TORBUE WHILE CLOSIMS BLEED VALV<br>The structure of the state of the | 1 BCAEEN F1  | ITING. CAUBED BY EXCE                                              | 661 VC 708             | 371 PM 394          | 1893                           | AP DECED AVEN                                       |        |
| BYBTEN EFFECT-D                     | SYSTEM EFFECT-DEPLETION OF LIQUID SUPPLY.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |              |                                                                    |                        |                     |                                |                                                     |        |
| WHICLE EFFECT-                      | WHICLE EFFECT-LOSS OF VEHICLE STABLLITY.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |              |                                                                    |                        |                     |                                |                                                     |        |
| CORRECTIVE ACTIO                    | CORRECTIVE ACTION-ALL BITES NERE CAUTIONED ABOUT TEGHTENING PROCEEDURE.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | I TIENTENI   | WOCECOUNE.                                                         |                        |                     |                                |                                                     |        |
|                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |              |                                                                    |                        |                     |                                |                                                     |        |
|                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |              |                                                                    |                        |                     |                                | PASE DOBS                                           |        |
|                                     | The state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the s   |              |                                                                    |                        |                     |                                |                                                     |        |

SENERAL DYNAMICS CONVAIR BIVISION

1 9

11 JUN 1986

.

•

| BYBTEN-AIRBORNE         |
|-------------------------|
| THE REVIEW-HYDRAULIC B. |
| DIFFICULTIES RE         |
|                         |

| 8181EN<br>805-818TEN                                                              | TEST/REPORT MUMBER FAILED COMPONENT NAME                                                                                                                                                                                                                                                                                | DIF DATA BOUNCE<br>PART NUMBER                               | WENTELE<br>DATE DIF    | 110 ALT                | VEHICLE BLTE PRI VEHOOR MANE              |                                        |
|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|------------------------|------------------------|-------------------------------------------|----------------------------------------|
| HTDRAULIC-A/B                                                                     | SP-8D-04-3355F<br>ACTUATOR SERVO VALVE                                                                                                                                                                                                                                                                                  | FAR<br>87-04:50-7                                            | 1190                   |                        | YES HYD. RESEARCH<br>NO 184768-1          |                                        |
| FAILURE MODE-SMORT, ELEC<br>L'ME AMALTRIS FOUND THAI<br>MERLAPPINE OF THE LEAD MI | FAILUME MOE-BHONT, ELECTRICAL-THE BOOSTER BERMOCYLINDER FAILED TO OPERATE DURING A RUN OF PROCEDURE 27-98605-8. FA<br>Ilime amaltris Found That a bhort existed betheen Ping B and C of The Tongue notor coll. Failure has attributed to o<br>Merlapping of the lead mires during nambracture of the Tongue Notor Coil. | ILED TO CHERATE DURI<br>C CO THE TORBUE HOT<br>E HOTOR COIL: | ST COLL.               | OF PROCED<br>PAILURE W | WE 27-98605-6. FA<br>AB ATTRIBUTED TO C   |                                        |
| CORRECTIVE ACTION-VENDOR                                                          | CONTECTIVE ACTION-VENDOR ADVISED OF FAILURE AND 178 CAUSE AND INSTRUCTED TO IMPROVE MOREMANDMIP. REF RAR SP-90-04-3                                                                                                                                                                                                     | NO INSTRUCTED TO IN                                          | NOW NOR                | Marie.                 | REF RAR 8P-80-04-1                        |                                        |
| 470444.[C-4/8<br>80087Eq                                                          | A-88-04-34EE-F<br>BOOSTER ACTUATOR ASSEMBLY                                                                                                                                                                                                                                                                             | FAR<br>27-06550-0                                            | 804<br>660708          | PACTORT                | YES HYDRAULIC RESE<br>ND ARCH<br>SOATOO-0 | =                                      |
| FAILURE HODE-OUT OF TOLERANCE, ON THE WENDOR.  CORRECTIVE ACTION-60/C PEINSTATE   | FAILURE MOSE-OUT OF TOLERANCE, OUT OF TOLERANCE DUE TO MARBINAL ADJUSTMENT OF THE BERNOCYLINDER DURING CHCCHOUT BY NEMBOR.  CORRECTIVE ACTION-66/C PEINSTATE: 0 MER CENT ACCEPTA ( TEXTS.                                                                                                                               | IML ADJUSTICAT OF 1                                          | MA BENVOC              | ירוויסנא פ             | URING CHECKOUT BY                         |                                        |
| HTDRALLIC-A/B<br>BOOSTER                                                          | A-88-10-11EF<br>HTDEAULIC TAME, O-RIME                                                                                                                                                                                                                                                                                  | FAR<br>27-06551-3                                            | <b>65</b> 066          | 877g                   | TES BEHBOM<br>ND 8865                     | *                                      |
| PAILURE MODE-INTERNAL LE<br>DIBASSCHOLY REVEALED HEI                              | FAILURE HODE-INTERNAL LEAK-648 LÉARAGE ACROMB THE PISTON WAS SUBPECTED. BLIGHT LEARAGE ACROMB THE PISTON WAS FOUND.<br>Disassembly revealed metallic contaminants on the Piston o Rims.                                                                                                                                 | S SUSPECTED. BLIGHT<br>AIND.                                 | 4 <b>38</b> 41431      | 20044 THE              | Platon una Found.                         | ······································ |
| CORRECTIVE ACTION-VENDOR<br>VAIR CLEANLINESS TESTS.                               | COMECTIVE ACTION-VENDOR IMS NOTIFIED OF CONTANINATION AND THEY REPLIED THAT THEIR RECORDS SHOKED THIS TANK MET CON<br>AIR CLEANLINESS TESTS.                                                                                                                                                                            | THEY REPLIED THAT TO                                         | EIR RECON              | S Profe                | THIS TAME MET CON                         |                                        |
| HYDRAULIC-A/B<br>BODDIER                                                          | 4-84-10-113F<br>Hidraulic Valve, Hansally Offrated                                                                                                                                                                                                                                                                      | FAR<br>E7-00560-3                                            | 4006                   | 5                      | YES STERER<br>NO 12860                    | •                                      |
| FAILURE MOC-FAIL DURING<br>M AT ANY PRESSURE FACH O<br>MACHA END OF THE BPRING.   | FAILURE MOC-FAIL DURING OPERATION-VALVE OPERATED INTERNITANTLY BURING BYBTEN CHECK OUT. VALVE FAILED TO ALLOW PLO<br>W at any pressure from 0.10.3000 Prig. Disabbendly revialed that the bleek MAD been installed Dackmands and on the<br>Mons and of the applies, completely closing the outlet oxipice.              | ANTLY BURING BYBITER<br>THAT THE BLIEVE MAD<br>CE.           | CHECK OUT<br>BELN IND! | . WLVE P               | ATUED TO ALLOW PLE                        |                                        |

CORRECTIVE ACTION-PERSONNEL AT LINCOLN APS MERE NOTIFIED ABOUT THIS FIELD ASSEMBLY DESCREPANCY.

CONTR BINISH

\*\*\*\*\*\*\*\*\*\*\*\*

| WI BICH    |  |
|------------|--|
| IA IO BIVA |  |
| 8          |  |

| ***                                                                                     | DIFFICULTIES REVIEW-ADDRALIC STRIEM-AIRDONNE                                                                                                                                                                             | MALLIC STSTEM-AIRBON                                                   | ¥                  |                           |                                        |         |
|-----------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|--------------------|---------------------------|----------------------------------------|---------|
| 8787EH<br>848-8187EH                                                                    | TESTAEPONT NAMER<br>PAILED COMPONENT NAME                                                                                                                                                                                | BIF BATA BOUNCE<br>PART HUMBER                                         | WHICLE<br>DATE BIP | 114 DIF                   | PRI VENDOR NAME<br>OTH VENDOR PART NO  | <b></b> |
| #10444.1C-478                                                                           | A-86-10-123F<br>BELIEF VALVE                                                                                                                                                                                             | FAR<br>87-06961-1                                                      | 7:7                | STCAMORE VES              | TES VINSON<br>NO AGGES                 | :       |
| PAILUME MODE-OUT OF TOLERANCE, VALVE PAIL<br>BPECIFICATION CALLS FOR \$3 6PM FIAL FLOM. | TOLIGEMEE. VALWE PAILED TO MEDEAT AT DOTCIFIED .MEDDUME. THE PLON NOD REDTRICTED TO 15 GPM, THE<br>For 25 GPM FULL PLOM.                                                                                                 | PECIFIED - MEDDING. 1                                                  | 3                  | 19 MESTRICT               | 10 10 11 Cm. 146                       |         |
| CORRECTIVE ACTION - N<br>TO BE CYCLED 100 TIME                                          | CORRECTIVE ACTION - NO FAILURE, VINSON METHOREM ALL MALWES FROM STOCK AND REINSPECTED THEN SOO PERCENT. ALL TO BE CYCLED TOO TIMES IN FUNCTIONAL TESTING, DISASSEMBLED AND TOO PERCENT INSPECTED BY BOYC REPRESENTATIVE. | FROM STOCK AND RESH<br>AND LOS PERCENT SWEET                           | SPECTED TO         | DI 180 PER<br>O/C REPRESE | EST. ALL VAL'ES<br>INTATIVE.           | -       |
| HTDAALE IC-A/B<br>BOOGTEA                                                               | A-94-04-3273F<br>ACTUATOR/VALUE, BERUD                                                                                                                                                                                   | FA8<br>E7-08550-9                                                      | 950036             | LINEOLN W                 | VES HYDRALLIC PESC<br>ARCH<br>104700-9 | 007186  |
| FAILURE HOSE-CONTABINATION. ACTUATOR PAI<br>ANTS IN THE FIRST STACE DEGPETING OFFFICE.  | PAILUME MOSE-CONTANIMATION. ACTUATOR PAILED TO RESMYDD TO BIGMALD PROPERLY. PAILUME WAS CAURED BY METALLIC CONTANIN<br>MID IN THE PIRAT BIAGE DEGPPING OFFICE.                                                           | SIGNALS PROPERTY. PA                                                   | 11.00              | CAURED BY 1               | ETALLE CONTANIN                        |         |
| CORRECTIVE ACTION-HTD                                                                   | COMECTIVE ACTION-HIDMANLIC REMEMEN CLEANING PACILITIES WENE INTROMES TO PREVENT MECHNAMICE OF THIS PAILURE MODE.                                                                                                         | ELE INFRONTO TO PREV                                                   | Det militale       | - D TOWN                  | Is Pairwe mode.                        |         |
| #1044.A.IC-A/B<br>BOGSTER                                                               | A-96-10-115F<br>H7DRAULIC ACCUMARNOR                                                                                                                                                                                     | FAR<br>87-9886-8                                                       | 500                | \$                        | 1ξ8 PLACOCA<br>NO 81310-3              | •       |
| FAILURE MODE-INTERNAL                                                                   | FAILUME MOSE-IMIERMAL LEAK. SAS PRECHANSE LEAGASE ACROSS THE PISION INTO THE MYDRAMAIC SASK.                                                                                                                             | NE PISTON INTO THE H                                                   | TRAMES O           |                           |                                        |         |
| CORRECTIVE ACTION-FAILURG NOT CONFINEDS.                                                | ILVAE NOT CONTINED.                                                                                                                                                                                                      |                                                                        |                    |                           |                                        |         |
| HTD48.4.1C-8/8                                                                          | 86-56-64-3500-6<br>ACTUATOR 0-4186                                                                                                                                                                                       | 744<br>87-06590-T                                                      | 1430               | # F #                     | VES HYD RESEARCH<br>ND 184700-1        | 3.      |
| PAILUME MODE-LEAN, EA                                                                   | PAILUME MODE-LEAR, EXTERNAL. THE MENUCTLINDER LEAKED AT A MATE OF 1 DRUP IN 28 CYCLES. OFTE CALLS FOR MAXIMUM LEAR<br>Ang mate of 1 Drup in 23 full-blook cycles. Disabblobut of the metwator decoded a worm dealms.     | MATE OF 1 DROP IN 28 CYCLES. SPEC<br>THE METANTOR SHORED A MORN G-RING | CTCLES.            | PFC CALLS                 | POR RESISTAN LEAK                      |         |
| CONNECTIVE ACTION-VEN                                                                   | CORRECTIVE ACTION-VENDOR, EFFECTIVE 19 JULY 1948, WILL IMPRET ALL O-RINGS WEINS 89 PORER INSMITTERTION.                                                                                                                  | PECT SEL O-RIMO UNI                                                    | 2 2                | A Menific                 | 17108.                                 |         |
|                                                                                         |                                                                                                                                                                                                                          |                                                                        |                    |                           |                                        |         |

SENERAL BYMANICS CONVAIR BIVISION

10 150 1800

|                                                                  | DIFFICUATIES REVIEW-                                                                                                                                                                                                                                                                                    | DIFFICULTIES REVIEW- WERAULIC BYBIEM-AIRBORNE     | ¥                   |                   |            |                                           |      |
|------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|---------------------|-------------------|------------|-------------------------------------------|------|
| 8787EH<br>8-8-8787EH                                             | TEST/REPORT NUMBER<br>FAILED COMPONENT NAME                                                                                                                                                                                                                                                             | DIF DATA BOURCE<br>PART NUMBER                    | WENTELE<br>DATE BLF | BITE PRI          | 20         | VENDOR NAME<br>VENDOR PART NO             |      |
| MTD44.4.1C-4.0                                                   | A-9L-04-353EF<br>ACTUATOR BEAL                                                                                                                                                                                                                                                                          | FAR<br>R7-06550-0                                 | 276                 | רווונסרוו         | 1          | VES HYDRAULIC RESE<br>NO ARCH<br>104700-1 | •    |
| FAILURE MODE-LEAR-<br>LYBIS FAILD TO CON-<br>B MANE CAUSED THE B | FAILUME MODE-LEAK-EXTERMAL, HIBRAULIC FLUID LEAKED AROUND THE ACTUATOR BHAFT, FUNCTIONAL TESTIMS DURING FAILUME ANA<br>LISIS FAILED TO CONFIRM THE PEPOATED LEAKAGE, THE ACTUATOR O-RIMS BEAL MAS FOUND TO MANE BURFACE BLENISHES THAT COUL<br>B MANE CAUSED THE BERVOCTLINDER TO LEAK AS MAS REPORTED. | NO THE ACTUATOR BUAFT.<br>OR O-RING BEAL MAS FOUN | PUNCTIONAL          | PESTIM<br>SUNFACE |            | ME PAILUNE ANA                            |      |
| CORRECTIVE ACTION-<br>IC ACTUATORS, UNDER                        | CORECTIVE ACTION-THE VENDOR, BEEINNING JULY 15, 1842, BEEAN 100 PER CENT INSPECTION OF O-RINSS, FOR USE IN HYDALUL<br>IC ACTUATORS, UNGER ED POMER SCOPE FOR VOLDS, INVERFECT MOLDING, ETC.                                                                                                             | MEAN 100 PER CENT IND<br>NOLDING, ETC.            | MCTICN OF           | 0-81166           | 5          | USE IN HYDRAUL                            | **** |
| HYDAALIC-A/B                                                     | A-84,-04-3420-F<br>ACTUATOR O-RING                                                                                                                                                                                                                                                                      | FAR<br>27-06350-8                                 | 900038              | LINCOLN           | <b>₽</b> 8 | TES HYDRAULIC RESE<br>NO ARCH<br>104700-9 | *    |
| MARGENED O-RIME. CORRECTIVE ACTION LED IN SERVOTLINGS            | MAKOKNED O-RIME.<br>CORRECTIVE ACTION - WINCOR INITIATED INSPECTION PROCEDURES TO INCLUDE MICROGROPIC EXAMINATION OF ALL O-RIMES INSTAL                                                                                                                                                                 | ES TO INCLUDE MICHORG                             | SIC EXAMI           | 4 1 1 0 s         | \$         | O-41165 145TAL                            |      |
| PEDSAILE AVE                                                     | A-90-04-3540F<br>ACTUATOR ASSEMBLY                                                                                                                                                                                                                                                                      | FAR<br>27-0850-8                                  | 75.<br>660804       | 221.0             | ¥ 8        | TES HYDRAULIC RESE<br>ND ARCH<br>104700-9 | :    |
| FAILUME MODE-LEAR-<br>TSIS TESTING DID MC                        | FAILUME MOE-LEAK-EXTERMAL, THE HYDAAULIC BUZBIER BERNOCTLINDER MAB LEARING AROUAD THE ACTUATOR BUMFT. PAILUME AMAL<br>1818 TESTING DID NOT COMPIRM THE FAILUME. METLACEMENT OF THE MENYO CTLINDER IN THE FIELD COMMECTED THE MEPONTED LEAR<br>AME.                                                      | CYLINGER WAS LEAKING AL<br>THE SERVO CYLINGER IN  | THE FIELD           | CORRECT           | a g        | · PAILURE AMIL.                           |      |
| CORRECTIVE ACTION-                                               | CORRECTIVE ACTION-NO CORRECTIVE ACTION-THE PAILURE NAS NOT CONFIRMED.                                                                                                                                                                                                                                   | NOT CONTINUED.                                    |                     |                   |            |                                           |      |
| #1044.4. [C-4/8                                                  | A-50-10-111F<br>H70RAULIC PUSP                                                                                                                                                                                                                                                                          | COMPOSITE-4 PACT<br>87-06680-1                    | 198038              | š                 | 58         | VICAÇAS<br>AA-80884-A-RA                  | :    |
| FAILURE MODE-EXTER                                               | FAILURE MODE-EXTERNAL LEAK-LEARD FROM MOUNTING PLATE.                                                                                                                                                                                                                                                   |                                                   |                     |                   |            |                                           |      |
| CORRECTIVE ACTION-                                               | CORRECTIVE ACTION-FAILURE NOT CONTINUED.                                                                                                                                                                                                                                                                |                                                   |                     |                   |            |                                           |      |
|                                                                  |                                                                                                                                                                                                                                                                                                         |                                                   |                     |                   |            |                                           | 7    |

CONTAIN BIVISION

\*\*\*\*\*\*\*\*\*\*\*

DIFFICULTIES REVIEW-MYDRAULIC STREET-AIRBORNE

| M31818 - 808                                                                     | FAILED COMPOSENT MARE                                                                                                                                                                                                                                                                                  | DIF DATA SOURCE<br>PART NUMBER                                                                                                                 | DATE BIF TI                   | BITE PRI VENDOR NAME<br>TIME BIF OTH VENDOR PART NO                        | ¥ -          |
|----------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|----------------------------------------------------------------------------|--------------|
| n10444.1C-4/8<br>804.1ER                                                         | A-84-04-8479-F<br>ACTUATOR O-8188                                                                                                                                                                                                                                                                      | FAR<br>87-06550-0                                                                                                                              | 7gf 34/8<br>860881            | 78 TES MT9 RESEARCH MD 184704-9                                            | 3            |
| PAILURE MODE-EXTERN<br>A RATE OF 3 DROPS E<br>TOD COURSE BRUSH BEI               | ERMIL LEAR, THE BOORTER MENYCYLINDER WAS 1879 FOR LEARAGE. THE ACTUATOR WAS FOURS TO BE LEARING AT STORE TO TE LEARING AT STORE FROM A STORE HOLD DURING THE MANUFACTURE OF THE OPENS. LEARAGE WAS CAURED BY FAULTY O-RINGS, RESULTING FROM A BELING USED DURING THE MANUFACTURE OF THE O-RING.        | MB 1879 POR LEARAGE. TO<br>BOUR. LEARAGE MB CAUM<br>ING O-RING.                                                                                | A ACTUATOR N                  | ACTUATOR WAS FOUND TO BE LEARING AT<br>BY FAULTY O-RINGS, RESULTING FROM A | 4 5          |
| CONTECTIVE ACTION-STARTING 15 JULY 196<br>OPE FOR VOIDS: INVESTICE HOLDING: ETC. | COMPECTIVE ACTION-STARTING 15 JULY 1968 THE MANUFACTURER STARTED 1600 PER CENT VISUAL IMPRECTION UNDER A 80 FOLEN DE                                                                                                                                                                                   | LA BTARTED 1000 PICA CENT                                                                                                                      | Album Samely                  | 710s wasta a 80 704                                                        | ¥            |
| HTBRAULIC-A/B<br>BOOSTER                                                         | A-94-34-3349F<br>ACTURTOR BERYO WALNE                                                                                                                                                                                                                                                                  | 744<br>87-06519-0                                                                                                                              | # 9809<br>000                 | ALTM TES HYDRALLIC RESE<br>NO ARCH<br>194700-9                             | 777          |
| PAILUME MIDE-OUT OF . TESTS CANTINED IN                                          | OF SPECIFICATION. THE BOOSTER BERNOCFLINDER ASSEMBLIES NEME 1878 MEER THEY PAILED TO THE FAILURE. THE MALL BHIFTS NEME CAUSED BY A BHIFT OF THE TORBUE MOTOR FOLE PIECES.                                                                                                                              | BOOSTER BERVOCFLINDER ASSEMBLIES NEME 1878 WHEN THEY PAILED TO MALL PROPERLY<br>Bripts were caused by a bript of the tongae monor pale pieces. | AND MEN THE                   | PALLED TO MALL PROP<br>ME PIECES.                                          | )            |
| CORRE, JVE ACTION-TO<br>REF FAR A-84-34-725.<br>R ALSO MELPS MOLD THE            | CORFF. LYE ACTION-THE VENCOR MAS REGUESTED TO IMPROVE THE PRESENT NETHOD OF SECURING THE TURBUF NOTOR POLE PIECES.<br>Ref for a -84-04-725. Stating with Memoraly Sur 108-1284 ALL TORGOE NOTOR COALS ARE SUFFORTED IN RUBGER. THE RUBG<br>R also helps hold the Torgoe Pieces securely in Place.      | NE PRESENT NETHOD OF BE<br>24 ALL TORBLE NOTOR COL<br>ACE.                                                                                     | CALLES AND BACK               | THE TURNET HOTOR FOLE PIECES.<br>BUFFORTED IN RUBERS. THE AUGSE            | . <b>.</b> . |
| H70444.1C-A/B                                                                    | 36-90-10-1377<br>Pump, O-41165                                                                                                                                                                                                                                                                         | FAR<br>27-00506-1                                                                                                                              | 1300 MR                       | N 788 VICAERS<br>NO AA-80684-18-EA                                         | 12-1         |
| FAILURE MODE-LEAR EL                                                             | A ESTERNAL. ATDRAVAIC DEL IZAM <b>ES E SPOPS IN 30 MENUTE</b> S AT A 118 PSIS CASE PRESSANE. THE LEAR WAS CA<br>WE O-8116.                                                                                                                                                                             | s in so memorite at A si                                                                                                                       | • Pare Com                    | MESSURE. THE LEAK UM                                                       | 3            |
| CORCECTIVE ACTION-M E TEST PROCEGUAGS FOR                                        | CONCECTIVE ACTION-SPECIFICATION E7-DESOE WAS REVINED ON BAREAGE TO SPECIFY MAXIMUM MALGMANE LEARAGE, AND TO OUTLIN<br>E TEST PROCECURES FOR ACCEPTANCE TESTING PRODUCER HYDRALLIC PUMPE, INCRITING INSPECIFOR PROCEDURE ET-6C-18813 WAS ALB<br>O AEVIECE FOR SPECIFIEMS ACCEPTABLE LEARAGE PARAMETERS. | 1 8/28/48 TO SPECIFY MAI                                                                                                                       | IININ ALGINGI<br>PECTION POCE | E LEARAGE, AMB TO CU                                                       | 1.18<br>ALB  |
| HTDRAILIC-A/B                                                                    | A-94-10-129-F<br>HTDAAULIC PLES HOSE                                                                                                                                                                                                                                                                   | FA4<br>27-60408-47                                                                                                                             | 717                           | PYESS TES MESISTOPLES<br>NO ARIPES-47                                      | •            |
| FAILURE MCCE-LEAN-EXTERNAL, HTDRAI<br>COMPONENT ALTHOUGH NOT JOENTIFIED          | Pailung McG-lear-External. Mtodaluig oil l <b>earls</b> at th <b>e bleing achits. Learage was betermines to be from bong other<br/>Componint although not identified.</b>                                                                                                                              | : M.E.W. JOHN'D. LEARAN                                                                                                                        |                               | 20 10 85 FROM BOK O                                                        | <b>5</b>     |
| CORRECT: NE ACTION-FA<br>AN AND BE NATCHED CLO                                   | CORRECTIVE ACTION-FRILURE NOT CONFIRMED. 60/6 ABVIRED PERBONNEL THAT IN PROBLEMS OF THIS TYPE THE WORE DE WIPED CLE<br>Na and be uniched closely to assume that the mose is actually leading before relaction it.                                                                                      | TERCOMEL THAT IN PROBLE<br>UNLLT LEARING BEFORE RE                                                                                             | 10 OF 1418 T                  | PE TAE MORE BE WIPED                                                       | 3            |

GENERAL DYNAMICS CONVAIR BIVIBION

5

18 108 1866

|                                                                |                                                                                                                                                                                                             |                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |              |            | i                            |                                        |     |
|----------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|------------|------------------------------|----------------------------------------|-----|
| 818163<br>808-818168                                           | TESTAREPORT NAMER PALLED COMPONENT NAME                                                                                                                                                                     | DIF DATA BOURCE<br>PART NUMBER              | WENICLE<br>DATE DIF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 114E 01F CTH | 23         | WENDY THANK                  | PART RO                                |     |
| MYDRAULIC-A/B<br>BCOSTER                                       | A-BL-10-141F<br>O-RIMG-SCOSTER HTDRAULIC PUMP                                                                                                                                                               | FAR<br>E7-06566-1                           | 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to 30 to | LIMOLN       | . 8        | VICKERS<br>AA-60684-R-RA     | 6-8-RA                                 |     |
| FAILUME MODE-LEAK-E<br>MET THAT HAD MOT COM                    | FAILUME MODE-LEAK-EXTERMAL. HYDRAULIC OIL LEARAGE DURING A PRESSUME CMECK WAS CAUSED BY A SLIGHTLY ROUGH TEFLOM GAS<br>Let that had mot compressed sufficiently to make a 6000 seal.                        | A PRESSURE CHECK WAS                        | CAU <b>SED B7</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | * F18        | 2          | USA TER                      | *** ********************************** |     |
| CORRECTIVE ACTION-S                                            | CORRECTIVE ACTION-SPECIFICATION E7-08303 MAS REVINED JUNE ES, 1942 PO CUTLINE TEST PROCEDURES FOR ACCEPTANCE OF PUR<br>PS RESARGING LEARAGE, QUALITY CONTROL DOCUMENT, E7-6C-1001S MAS REVINED ACCORDINGLY. | ES. 1962 TO CUTLINE                         | 7ES7 PROCE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | DOMES FO     | 9 PCC      | EPTANCE                      | 5                                      |     |
| MTDRAULIC-A/B<br>BOOSTER                                       | 00-5166.E<br>HTDRALLC PRESSURE BUTTCH/HENETIC ET-00548-1<br>BEALED HICHOMITCH                                                                                                                               | UTP-QUAL/PPT                                | 226025                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | CONVAIR      | <b>2</b> 8 | VES SERVONIS<br>NO EOSE-0601 | 3 6                                    | *** |
| FAILURE MODE-OUT OF<br>BAUME COMMECTIONS MA                    | OF TOLERANCE-DIMENSION OF 1.0 PLUS/NIMUS 0.03 INCH BETWEEN CENTER POINTS OF THE ELECTRICAL AND PRE<br>MAS 1.23 INCH. R.F. TAM HISTORY NO. 10 8/N 1000; 1001:1008.                                           | 0.03 INCH BETWEEN C<br>L/M 1000, 1001,1008. | DOTER POBAT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | \$ P TA      | 3          | TRICAL /                     | 36 76                                  |     |
| CORRECTIVE ACTION-T                                            | CORRECTIVE ACTION-THE UNIT COMPLIED WITH THE WENDOR PRINT WHICH WAS APPROVED BY DESIGN. SPECIFICATION WILL BE PROCE                                                                                         | WICH MAS APPROVED (                         | 77 DESIGN.<br>A 0.05.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | PECIFIC      | 911        | 1                            | 37044 3                                |     |
| MYDRAUL ICA/B<br>BODS TER                                      | A-96-10-144F<br>BOSTER HTDRAULIC ACCUMAATOR                                                                                                                                                                 | FAA<br>E7-08554-3                           | <b>603</b> 17                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 01210        | 5 5        | PEACOCK<br>\$1310-3          |                                        |     |
| FAILURE MODE-CONTAN                                            | FAILUME MODE-CONTANIMATION. GAS PRECHARGE LEAKED ACROSS PISTON INTO THE WYDRAMLIC OIL SIDE POSSIBLY DUE TO METALLIC<br>Blivers bridelm o-rime, Particle Foard on Disabadent.                                | ISTON INTO THE HYDRA                        | AIC OIL BI                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 100 POBB1    | 2          | 2<br>5                       | ETALLIC                                |     |
| CONSECTIVE ACTION-F                                            | CONFECTIVE ACTION-FAILURE NOT CONFINED. INSPECTION PERSONNEL WERE ALERTED TO THE CRITICAL MEED FOR ABSURING CONTAIN                                                                                         | MEL MERE ALERTED TO<br>LICLE ARRENOLY.      | 14 <b>E</b> CA111C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | . METD 1     | 8          | ST INC                       | CONTAB                                 |     |
| MTDRAULIC-A/B<br>BODSTER                                       | A-84-10-107F<br>Tube Abbermany                                                                                                                                                                              | FAA<br>87-05107-498                         | 915020                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 97C.         | ដូខ្       | 2,3                          |                                        | •   |
| Failume mode-structumal-canca<br>Bue to stress comosion caaca. | FAILURE HODE-STRUCTURAL-CRACK WAS NOTED IN ONE OF THE 8 MUT PITTIMES ON THE TUBE, NO LERKARE WAS QUSERNED. FAILURE<br>UE TO STRESS CORROSION CRACK.                                                         | UT PLITTINGS ON THE TI                      | 771 OH 138                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 99           | 8          | A 40. V.                     | וויאנ                                  |     |
| CORRECTIVE ACTION-T<br>ALUMINUM, THIS WAS D                    | N-THIS STRESS CORROSION PROBLEM INSTINITED A PROGRAM TO ATUDY ING USE OF STAINLESS STEEL INSTEAD OF S DOME OF STREETS STEEL INSTEAD OF                                                                      | A PROGRAM TO STUDY                          | <b>5 36</b> 54                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 8741M.E      | £ .        | 19<br>18<br>18               | <b>8</b> 07 1                          |     |
|                                                                |                                                                                                                                                                                                             |                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |              |            |                              |                                        |     |

CONTAIN BINISION

\*\*\*

| SUBJECT STREET TEST/REPORT NAMES BIF DATA SOURCE WERICLE SITE FALL WENDOR NAME SUB-2721EN FALLED COMPONENT NAME PART NAMES OASTE SUFFICE STREET STREET STREET SUB-2721EN FEBRUARE SOURCE COMPONENT NAME SUB-2721EN FEBRUARE SUB-27 | CANAGE. NE LEAR TO WINDOW OF DE TO WINDOW OF DE TO WINDOW OF DE TOWN WATER FOUND TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF DE TOWN OF D TOWN OF D TOWN OF D TOWN OF D TOWN OF D TOWN OF D TOWN OF D TOWN OF D TOWN OF D TOWN OF D TOWN OF D TOWN OF D TOWN OF D TOWN OF TOWN OF D TOWN OF D TOWN OF D TOWN OF D TOWN OF D TOWN OF D TOWN OF D TOWN OF D TOWN OF D TOWN OF D TOWN OF D TOWN OF D TOWN OF TOWN OF D TOWN OF D TOWN OF D TOWN OF D TOWN OF D TOWN OF D TOWN OF D TOWN OF D TOWN OF D TOWN OF D TOWN OF D TOWN OF D TOWN OF TOWN OF D TOWN OF D TOWN OF D TOWN OF D TOWN OF D TOWN OF TOWN O | ALTUE DIF OTH ALTUE TES BE INTROVED WITH YES BOT DOMESTIRE REP BOT DOMESTIRE REP BOT DOMESTIRE REP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | ATTHE BIT OTH WENDON PART HO ALTHE BIT OTH WENDON PART HO INDIBATE HAS CONTINED AND TA ILEAAME HAS CONTINED AND TA  LEAAME HAS CONTINED AND TA  WIR TES HTDALALIC RESE HO ARCH 104706-9 147 HDT DOMI STREAM OF THE INCE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PAR<br>27-06550-9  ER ASSEMPLIES WERE REJECTED FOR LA<br>FAR  PAR  PAR  PAR  PAR  PAR  PAR  PAR                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | SALAG. THE LEADS OF TO WESTER TO THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART  | THE WAS COMES OF THE PROOFERS  | 1 NTD. RESEARCH<br>184700-0<br>1 TO PREVENT UND<br>ARCH<br>104706-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>104400-0<br>1 |                                                                                                                                                                                                                                                                                                                                                                                  |
| EN ASSEMPLIES MENE SEJECTED FON LUIS OF PAILURE AMALTRIS AND MESUES PARTICLES MENE PORSUE PLINT PRAEM PARTICLES MENE PORSU INSIDE THE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | MANE. HE LEA<br>TO MERCA OF B<br>METALTOR BAT NO<br>TORRE PAINT P                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | T INTEGRAL OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE O | DEFINED AND THE PROPERTY UND THE PROPERTY UND THE PROPERTY UND THE PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF PROPERTY OF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | į.                                                                                                                                                                                                                                                                                                                                                                               |
| TA OF PAILURE AMALTRIS AND MESUES FAM 27-08550-8 ARTICLES MEME POUND INSIDE THE MEL CAUTIONED MECHANICS TO RESOME                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | MED WENCH OF BE<br>METWING BUT NO<br>ACTUATION BUT NO<br>TORRIG PASSET P                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | T INTROVED IN ACT OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPE | ) TO PREVENT USA HYDRAULIC RESI SOATOC-9 DELACCHENT OF PI MEAN OF THE INCI                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                  |
| FAR  ET-06550-9  -ECTED BECAUSE TORBLE PA,INT FRAEM PARTICLES WERE FOUND INSIDE THE PARTICLES WERE FOUND INSIDE THE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | ACTUATOR BUT POSSES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Puring and Property of Popular and Property of Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular and Popular | HEDALLIC REMARCH SOLDED STATEMENT OF FIRE INCIDENT OF FIR                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                  |
| METTICLES NEW PONNE PRINT PREM<br>PARTICLES NEW POND THEIDE THE<br>NEL CAUTIONED NECHANICO TO ADIOME                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | CHANGE BUT NO ACTUATION BUT NO TO TO TO THE PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PASSING PA | 7 2000 7 7 2000 17 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 10 21 | PLACEMENT OF FI<br>MEAN OF THE EMAI<br>EANSEMBLING FE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                  |
| ME CAUTIONED MECHANICS TO REPORT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | toned paint p                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 16 06 2018                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | INSSERECT PER PI                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                  |
| A-9H-10-136C PAR<br>HTD4ALIC ACCUMANOR 87-08864-8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 77 856500                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | PEACOCA<br>B1816-50                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | =                                                                                                                                                                                                                                                                                                                                                                                |
| AR INTERNAL. HYDRAULIC CAL POIND ON THE PREUMATIC BIDE OF THE<br>AND FOLAD TO BE ACCEPTABLE AND NAB RETURNED TO BERVICE.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | E INTERMEDIATE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | F1 - 101 - 17                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | A 417 4 CA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                  |
| NGS. 50/C ADVINCE FIELD PERSONAL.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | TO VERIFY LEAS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | A 71 04                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                  |
| #4-10-134P FAR<br>HTDAALLIC ACCUMALATOR 87-3884-8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | *                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 5 PEACOCK<br>51310-36                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | =                                                                                                                                                                                                                                                                                                                                                                                |
| L FOUND ON PAGUNATIC EIDE OF PIRT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | CH BAE TO PART!                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | H 8 973                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | CALING O-RING.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | •                                                                                                                                                                                                                                                                                                                                                                                |
| CORRECTIVE ACTION-FAILURE NOT CONFINED. 60/C ALERTED INAPECTION PERSONNEL.<br>NOT ENTER THE HYDRAULIC STRIEN DURING VEHICLE ARRENGET.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 10 THE HEES POR                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 49141164                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | CONTANING AT B D                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                  |
| ATOR CR THE AND UND THE AND UND THE ATOR CR A ALERTED CLE A ADDRING.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | FAR BT-0884-8 E MEMBETS TO REAVICE.  PAR BT-3884-8  FAR BT-3884-8  MEMBETS TIELD PERSONNEL.  INDECTION PERSONNEL.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | FAR 87-0854-5 G00000 AL 87-0854-5 INTERNEDIANG LUNGED TO SCAVICE.  FAR 87-3854-5 S0000 TO WESTY LEAR 87-3854-5 S0000 TO FEETON PERSONNEL TO THE MEED FOR F.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | FAR 87-0854-8 000000 ALTUS TO STAND AND THE TOTAL STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AND THE STAND AN                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | PAR BY-DASIA-S GRANG PAINT PRICE TO BIS PROMETLY TO BE STORED TO SERVICE.  PAR BY-DASIA-S GRAND AND PRANTON. THE BED TO SERVICE.  FAR RESTORMED TO WERITY LEARANG PRICE TO SERVICE.  LUMATIC EIBE OF PISTOR BAE TO PARTICLES ON SEA LUMATIC EIBE OF PISTOR BAE TO PARTICLES ON SEA LUMATIC EIBE OF PISTOR BAE TO PARTICLES ON SEA LUMATIC EIBE OF PISTOR BAE TO PARTICLES ON SEA |

GENERAL BYNAMICS CONVAIR BIVISION

10 JW 1006

|                                                         | DIFFICULTIES REVIEW-HYDRAULIC SYSTEM-AIRBORNE                                                                                                                                                                        | AULIC BYSTEN-AIRBOR                         | ¥                                                                    |                  |                                        |          |   |
|---------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|----------------------------------------------------------------------|------------------|----------------------------------------|----------|---|
| 8781EN<br>848-8781EN                                    | TEST/REPORT NUMBER<br>FAILED COMPONENT NAME                                                                                                                                                                          | DIF DATA BOUNCE<br>PART CAMBER              | VEHICLE BITE PRI VENDOR MANE<br>DATE BIP TIME BIF OTH VENDOR PART NO | 71.0             | PRI VENDOR                             | PART NO  |   |
| HTDRALLIC-A/B<br>GOOSTER                                | A-88-10-108F<br>HTDRAULIC ACCUMULATOR O-RING                                                                                                                                                                         | PAR<br>87-0886-3                            | 1863                                                                 |                  | 7ES PEACOCH MACH.<br>NO CO.<br>31310-3 |          |   |
| FAILURE MODE-INTERNAL LE<br>GRACES IN IME O RING.       | PAILUME MODE-INTERNAL LEAR, LEARAGE OF SAS PRECHARGE ACROSS THE PISTON INTO THE MYDRAULIC SYSTEM. FAILURE CAUSES SY<br>Cracks in the o rims.                                                                         | THE PISTON INTO THE                         | E HYDRAULIC                                                          | 9787EH.          | PAILURE CA                             | ve 63ev  |   |
| CORRECTIVE ACTION- VENDOR                               | CORRECTIVE ACTION-VENDOR WAS ISSUED E.O. 2567 TO PROCURE SUPERIOR BULLITY O RINGS.                                                                                                                                   | ERIOR BUALITY O RE                          | ž                                                                    |                  |                                        |          |   |
| HTDRAULIC-A/B<br>BOOSTER                                | CT-98-10-011-F<br>HTDRALLIC ACCHALATOR, O-RING                                                                                                                                                                       | FAR<br>27-00554-3                           | 1 527020                                                             |                  | VES PEACOCA<br>NO 51310-3              |          | : |
| FAILURE MODE-LEAR INTERN                                | FAILUME MODE-LEAR INTERNAL-PREUMATIC LEARAGE TO MYDR/ULIC SIDE OF THE ACCUMULATOR. CAUSE MAS O-AIMS PEAMEASILITY.                                                                                                    | DE OF THE ACCUMALN'                         | 101. CAUBE 1                                                         |                  | A PERMEAB!                             | .117.    |   |
| CORRECTIVE ACTION-60/C SA<br>BE DELETED AND THE BOOST   | CORECTIVE ACTION-GO/C SABHITED CHANGE REBUEST SIGS FOR AIRFORCE APPROVAL WEBEIN THE SUBTAINER ACCUMULATORS NOULD<br>BE DELETED AND THE BOOBTER ACCUMULATOR REPLACED METH A NEW UNIT. CHANGE MAS DISAPPROVED.         | FORCE APPROVAL WED                          | EIN THE BU                                                           | TAINEA /         | CCURALA TOR                            | • womp   |   |
| HTDRAULIC-A/B<br>BOOSTER                                | A-80-04-3353F<br>ACTUATOR-O-RING                                                                                                                                                                                     | FAR<br>E7-06550-0                           | 24. Vin                                                              |                  | VES HYD. PESCARCH<br>NO 104700-9       | SEARCH   |   |
| FAILURE MODE-CONTANIMATIC<br>TUATOR. FAILURE AMALTSIS ( | FAILURE MOE-CONTAHINATION. THE BOOSTER SERVOCYLINDER HAS IR7D FOR LEARAGE AROUND GLAND MUT AT PISTON END OF THE AC<br>TUATOR. FAILURE AMALTSIS FOUND A CONTAHINANT PARTICLE OF COTTON BRIDGING THE GLAND MUT Q-RIMS. | I'D POR LEARAGE ANOL<br>ON BRIDGING THE GLA | NO 6446 NU<br>NO NUT 0-61                                            |                  | 104 EM OF                              | 74<br>24 |   |
| CORRECTIVE ACTION-VENDOR                                | CORRECTIVE ACTION-VENCOR REGUESTED TO IMPROVE CLEANING PROCESSES. REF RAR-A-80-04-786.                                                                                                                               | 38ES. REF RAR-A-9D-                         | 94-726.                                                              |                  |                                        |          |   |
| MYDRAULIC-A/B<br>BOOSIER                                | 4D62-0041/B4667/B1-4HD-11-12                                                                                                                                                                                         | CONFOST TE-FRO/DM.                          | 127 87                                                               | 94.              | 22                                     |          | : |
| FAILURE HODE-OUT OF TOLEA<br>T FOR COMMIT SURBARY.      | FAILUME MODE-OUT OF TOLEAAMCE BOOATER HYDRAULIC PMESSURE MAS OUT OF TOLERANCE PMECLUBING CONPLETION OF HISSILE READ<br>FOR COMMIT SUNMARY.                                                                           | OUT OF TOLERANCE P                          | AECLUDIUS C                                                          | <b>GEP.E</b> 710 | M OF HIBSE                             | LE READ  |   |
| BYSTEM EFFECT-OPERATION 1                               | BFBIEN EFFECT-OPERATION TOO LOW BOOBTER HYGRAULIC PREBUNE IN B APPROXIMATELY 1809 PBI.                                                                                                                               | NS APPROXIMATELY 16                         | 8 Pi.                                                                |                  |                                        |          |   |
| WHICLE EFFECT-COUNTDOWN DELAYED                         | DELAYED                                                                                                                                                                                                              |                                             |                                                                      |                  |                                        |          |   |
| CORRECTIVE ACTION-HPU BOO                               | CORRECTIVE ACTION-HPU BOOSTER HYDRAULIC SYSTEM PRESSURE CONTROL WAS ABJUSTED TO THE PROPER PRESSURE.                                                                                                                 | ROL WAS ADJUSTED TO                         | THE PROPER                                                           | 300              | ن                                      |          |   |

CONVAIR BIVIBION

13 Jun 1866

|   |                                                                                                                                       | DIFFICULTIES REVIEW-MYDRAULIC SYSTEM-AIRBORNE                                                                                                                                                                                                                                                                                                                                            | WIC BYSTEN-AIRBORN                                                  | <b>¥</b>                               |                                                           |            |                                           |                           | ţ |
|---|---------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|----------------------------------------|-----------------------------------------------------------|------------|-------------------------------------------|---------------------------|---|
|   | 9191ET<br>916-9191ER                                                                                                                  | TESTARDORT HUNGER<br>FALLED COMPONENT MANG                                                                                                                                                                                                                                                                                                                                               | DIF DATA BOUNCE<br>PART NUMBER                                      | VEHICLE<br>DATE DIF                    | BITE PRI VENDOR NAME TO STREET                            | # 0<br># 1 | VENDOR HANG<br>VENDOR PART                | MAME<br>AR 1 120          |   |
|   | MYDRAULIC-A/B<br>BOOSTER                                                                                                              | A-84-04-3174F<br>ACTUATOR                                                                                                                                                                                                                                                                                                                                                                | FAR<br>87-06850-0                                                   | 301039                                 | STCANOTE TES MYDAAULIC RESE SSTLOS<br>NO ARCH<br>104700-8 | ្តិ ខ្     | HYDRAUL. 1<br>ARCH<br>104700-8            | C RESE                    | • |
|   | FAILURE HODE-LEAK ERTERMAL-LEAK WE WO CYLIMCER DID ACTUALLY LEAK WE E OF THIS MA.UME IS DISCUSSED IN EMOVAL OF A HYDRAULIC COMPONENT. | FAILURE MOE-LEAR ERTERMAL-LEARAGE WAS REPORTED TO BE FROM THE PLOW LIMITER PLUS. IT IS SUITE POSSIBLE THAT THE MEN<br>WO CYLINCER DID ACTUALLY LEAR WERT BLISHTLY CAUSING A SURFACE METTING AND EVENTUALLY THE FORMATION OF A DROP. LEAKAGE<br>E OF THIS NA.UME IS DISCUSSED IN REPORT HTD-150-02 WHICH STATES THAT SUCH LEAKAGE IS NOT A CAUSE FOR REJECTION AND A ENOMALLIC CONFONENT. | NE FLOY LINITER PLI<br>: NETTING AND EVENTI<br>IED THAT BUCH LEAKAN | A. 17 18<br>MLLY THE<br>K. 18 HOT      | PORMATION<br>A CAUSE P                                    | 200        | L THAT (                                  | ME BER<br>LEAKAS<br>AND A |   |
|   | CORRECTIVE ACTION-PAILURE<br>8 SENT THEN A COPT OF REAC<br>ED PEASONEL NOT TO REMOM                                                   | CORRECTIVE ACTION-FAILURE NOT CONFIRMED, 60/C INFORMED PERSONNEL AT SYCAMORE OF THE RESALTS OF THIS ANALYSIS AND MA<br>Sent ther a copt of report htd-150-42 union describes allomble hydrolic system léarase rates. 60/c further advis<br>D prasonnel not to renove units uniol learase is out of specification.                                                                        | MMEL AT BYCANOME OF<br>MBLE HYDRAULIC BYB!<br>!F!CATION.            | THE RESU                               | E 847E8.                                                  | 99         | FURTHER                                   | AND HA<br>ADVIB           |   |
|   | HTDRAUL IC-A/B<br>BODG IER                                                                                                            | A-96-D4-3214F<br>ACTUATOR                                                                                                                                                                                                                                                                                                                                                                | 7AA<br>27-06580-8                                                   | ************************************** | <b>878</b>                                                | 20         | TES MYDRAULIC RESE<br>NO ARCH<br>104700-8 | C RESE                    |   |
|   | FAILURE MODE-LEAK, FAILUR<br>TO THE STRIEM.                                                                                           | FAILUME MONE-LEAK, FAILUME OCCUMMED DURING PERFORMANCE OF FILL AND BLEED PROCEDUME 87-80408; METM 500 PSIG APPLIED<br>O THE STRIEM.                                                                                                                                                                                                                                                      | IL AND BLEED PROCES                                                 |                                        |                                                           | 8          | •                                         | 3                         |   |
|   | CORRECTIVE ACTION-NOME. PAILURE NOT CONFINED.                                                                                         | PAILURE NOT CONTINUED.                                                                                                                                                                                                                                                                                                                                                                   |                                                                     |                                        |                                                           |            |                                           |                           | 1 |
|   | HYDRAIL IC-A/B<br>BOOSTER                                                                                                             | CT-98-10-009-F<br>DOOATER HTDRAULIC PURP                                                                                                                                                                                                                                                                                                                                                 | PAR<br>87-06960-1                                                   | <b>48036</b>                           | 618                                                       | 20         | VES VICAERS<br>NO AA-60654-R-EA           | 44-4-                     | • |
|   | FAILURE HODE-STRUCTURAL-I                                                                                                             | FAILUME MODE-BTRUCTURAL-INSPECTION OF PLAP REVEALED PURP CASE CRACK EXTENDING FROM THE BACK COFER PLATE PLANKE TO T<br>E control piston planke. Cause of Pailume has due to boodter return strten onen pressunization.                                                                                                                                                                   | IE CRACK EXTENDING I<br>RETURN BYBTEN OVE                           | MOR PAL .                              | ACA COTE                                                  | 2          | 7.7.7                                     | 5                         |   |
|   | CORRECTIVE ACTION-60/C CHANGED HYDRAUL!<br>VA DURING A SEQUENCE OF HYDRAULIC PRESS<br>D VS VALVES-PROBLEM REDUCED TO D-SERIES.        | COMBECTIVE ACTION-60/C CHAMGED HYDRAULIC READINESS OPERATION TO DELETE THE CLOSURE OF RETURN SHUT OFF VALVES VE AND<br>Va during a sequence of hydraulic pressure unit operation. E and P beates hydraulic pumping units do not have ve an<br>Vs Valves-Prodleh reduced to D-beries.                                                                                                     | I AND P DELETE THE CLOS                                             | LUE OF AS                              | TURN BHU!                                                 | 8          | VALVES<br>HOT HAVE                        | OH ZA                     |   |
| 1 | HTDRAULIC-A/B<br>BOOSTER                                                                                                              | AC-62-0027/411-12-01<br>BOOSTER ACCUMULATOR                                                                                                                                                                                                                                                                                                                                              | CAPTI WE<br>E7-06854-8                                              | 16                                     | 3                                                         | 20         | 768 PEACOCH<br>NO 81310-3                 |                           |   |
|   | FAILURE MODE-LEAR INTERNAL, BO<br>IDE OF THE ACCUMULATOR PIBTONB.                                                                     | Pailune mode-lear internal, both booster accumulators were discovered to be learing swe from the bas to the fluid s<br>De of the accumulator pistons.                                                                                                                                                                                                                                    | DI SCOWERED TO BE LEA                                               | # FE                                   | PROB THE                                                  | 3          | 10 THE F                                  | 9 000                     |   |
|   | BYBIEN EFFECT-OFFLETION                                                                                                               | BIBIEN EFFECT-DEPLETION OF SAB SUPPLY IN ACCUMULATORS.                                                                                                                                                                                                                                                                                                                                   |                                                                     |                                        |                                                           |            |                                           |                           |   |

MENICLE EFFECT-NOME.

CONVAIR DIVISION

15 JUN 1066

|                                             | DIFFICULTIES REVIEW-HYDRAULIC SYSTEM-AIRBORNE                                                                                                                                                                                               | DRAULIC SYSTEM-AIRBON                                     | ¥                   |                                        |                                           |                                          |        |
|---------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|---------------------|----------------------------------------|-------------------------------------------|------------------------------------------|--------|
| 3751EN<br>84 <b>6</b> -875EN                | TEBTAEFORT NUMBER<br>FAILED COMPONENT NAME                                                                                                                                                                                                  | DIF DATA BOUNCE<br>PART NUMBER                            | VEHICLE<br>DATE DIF | WENICLE BITE<br>DATE DIF TIME DIF      | PRI VENDOR NAME<br>OTH VENDOR PART NO     | 9 4                                      |        |
| CORRECTIVE ACTION-BOT                       | ON-BOTH BOOSTER ACCUMULATORS MERE REPLACED.                                                                                                                                                                                                 |                                                           |                     |                                        |                                           |                                          | *****  |
| HTDRAULIC-A/B<br>BOUSTER                    | A-88-04-3218-C<br>ACTUATOR                                                                                                                                                                                                                  | FAR<br>27-08550-8                                         | 916039              | 2                                      | VES HYDRAULIC RESE<br>NO ARCH<br>S04700-9 | 1                                        | 14000  |
| FAILURE HODE-FAIL TO CEIVED ON CARDS 434 AM | IL TO OPERATE AT PRESCRIEG TIME, MAILE RUMMING MAPCHE DECK 401, AUTOPILOT/HYDRAULICG MO-GOG MERE RE<br>434 AND 436. THE PITCH ACLUATOR MOULD NOT MULL.                                                                                      | MAL.                                                      | , AUTOPILE          | JT/HYDRAUL                             | 1C4 NO-606 M                              | ac ac                                    |        |
| COFFECTIVE ACTION-NOME,                     | E. DUE TO ERROR IN BHIPPING INSTRUCTIONS, PART WAS NOT RECEIVED FOR PAILURE ANALYSIS.                                                                                                                                                       | IONS. PART WAS NOT RE                                     | CELVED POR          | FAILURE                                | AMAL V 8 1 8.                             |                                          |        |
| HTD9AU.IC-A/B<br>BOOSTER                    | A-90-10-1034<br>HTDRAULIC TANK                                                                                                                                                                                                              | FAR<br>E7-06351-3                                         | <b>80808</b>        | Ę                                      | VES BENBON MF6. CO                        |                                          | 001100 |
| FAILURE MODE-INTERNAL                       | FAILURE MODE-INTERNAL LEAR-PROBASLE PRE-CHARGE GAD LEAR ACRODS THE PISTON INTO THE MYDRAULIC SYSTEM.                                                                                                                                        | CROSS THE PISTON INTO                                     | THE HYDRA           | IL. IC 8787                            | ś                                         |                                          |        |
| CONNECTIVE ACTION-LANG                      | ON-UNKNOWN, FAILURENOT CONTINUED.                                                                                                                                                                                                           |                                                           |                     |                                        |                                           |                                          |        |
| MYDRAULIC-A/B<br>BOOSTER                    | CT-98-10-009F<br>HYDRAULIC ACCUMULATOR, O-RINS                                                                                                                                                                                              | FAR<br>27-06554-3                                         | <b>66</b> 0308      | ETA                                    | VES PEACOCK<br>NO 81310-3                 |                                          | 3      |
| FAILUNE MODE-LEAR INTI                      | EAR INTERNAL. LEARING WAS TO HYDRAULIC SIDE OF THE ACCIMULATOR.                                                                                                                                                                             | OF THE ACCIMILATOR.                                       |                     |                                        |                                           | and a state of the state of the state of |        |
| CORRECTIVE ACTION-PEA                       | CH-PEACOCK E.O. 2587 WAS 1384ED TO PROCURE                                                                                                                                                                                                  | TO PROCURE SWERIOR SWALITY O-RINGS EFFECTIVE ON 11/10/81. | INGS EPPEC          | 71 VE ON 1                             | 1/10/01.                                  | ***************************************  |        |
| HTDRAULIC-A/B                               | CT-98-10-608F<br>BOOSTER HTPRAILIC ACCUMILATOR                                                                                                                                                                                              | FAR<br>27-06554-3                                         | \$0\$029            | C1                                     | VES PEACOCK<br>NO 81310-3                 |                                          | 1      |
| FAILURE MODE-LEAK INT                       | AR INTERNAL-REPORTED LEAKING GAS TO HYDRAULIC SIDE OF THE ACCUMULATOR.                                                                                                                                                                      | LIC 810E OF THE ACCUM                                     | MATOR.              |                                        |                                           |                                          |        |
| CORRECTIVE ACTION-FAIL                      | ON-FAILURE NOT CONFIRMED. PEACOCH C.O. 2567 MAS ISSUED TO PROCUME SUPERIOR SUMLITY O-RIMSS EFFECTIVE                                                                                                                                        | P MAS ISSUED TO PROCU                                     | RE BUPERIO          | R BUALITY                              | 0-81M6 EFFE                               | Z 11 VE                                  |        |
| MTGRAULIC-A/B<br>BOOSTER                    | A-8M-04-8131F<br>ACTUATOR/AMPLIFIER                                                                                                                                                                                                         | FAR<br>27-08550-8                                         | 25¢<br>42°305       | ###################################### | NO MYDRAULIC RESE<br>NO ARCH<br>104730-8  | 3636                                     |        |
| FAILURE MCDS-FAIL DUR!                      | FAILURE MOSS-FAIL DURING OPERATION-BOODTER MERVO CYLINDERS VIBRATED EXCESSIVELY DURING PERFORMANCE OF MYDRAULIC FIL.<br>- AND SLEED PROCEDURE 27-88402 MITH INFUTS FROM BOTH THE P/N 87-48200-1 AND THE P/N 87-41000-831 ANFLIPIER, FAILURE | D VIBRATED EXCESSIVES                                     | V DURING V          | ERFORKANC<br>000-631 A                 | E OF HYDRAUL!                             | 11 C 11 C                                |        |

GENERAL DYNAHICS CONVAIR BIVIBION

11 104 1100

|                                                                                                               |                                                                                                                                                                                                                                                                                               | E PART NUMBER                                                                                                                                               | DATE DIFITINE DIF OTH | 11M 0:4     |                                         | WENDON PART NO                            |     |
|---------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-------------|-----------------------------------------|-------------------------------------------|-----|
| MAS CONFIRMED WITH TH                                                                                         | H THE P/N 27-43200-1 UMMODIFIED AMPLIFIER BUT NOT WITH THE P/N 87-41000-881 AMPLIFIER. P/N E7-41000 SPECIFICALLY TO ELINIMATE THE FAILURE MODE NOTED. THE ACTUATOR NAS WITHIN SPECIFICATION.                                                                                                  | LIFIER BUT NOT WITH THE P.                                                                                                                                  | W 87-41000            | -031 AMP.   | 171G.                                   | P/N E7-41000                              | •   |
| CORRECTIVE ACTION-6D<br>ADDITIONAL AUTOPILOT<br>ED MITH THE P/N ET-411                                        | CORRECTIVE ACTION-GD/C HAS INFORMED PERSONNEL AT SCHILLING APS OF THE RESULTS OF THE AMALYSIS AND RECOMMENDED THAT<br>ADDITIONAL AUTOPILOT TROUBLE SHOOTING SE PERFORMED TO ISOLATE THE CONFIGUR CAUSING THE ENGESSIVE VISHATIONS WHEN US<br>ED WITH THE P/N ET-41000-831 MODIFIED AMPLIFIER. | HILLING APB OF THE RESULTS<br>D ISOLATE THE CONFCHENT C                                                                                                     | OF THE AM             | THE COST OF | D RECOM                                 | MENDED THAT<br>JOHS MHEN US               |     |
| MYDRAULIC-A/B<br>BOOSTER                                                                                      | A-90-04-3215F<br>ACTUATOR                                                                                                                                                                                                                                                                     | FAR<br>R?-06550-7                                                                                                                                           | 81303 <b>3</b>        | 5           | YES H<br>NO AN                          | YES HYDRAULIC RESE<br>NO ARCH<br>104700-1 | ••• |
| FAILUNE MCDE-FAIL TO<br>APCHE DECK 6. AT CARD<br>AMMED.                                                       | IL TOERATE AT PRESCRIBED TINE REPORTED. FRAILED WHILE PERFORMING TEST PROCEDURE E7-80506-6 USING CARD ES, THE BOORTER NO. E HTDRAULIC-YAW BERVOCTLINDER NOWED NOT NALL WHEN CONTAIN SIGNAL MAS PROCE                                                                                          | ORTOL, FAILED WHILE PERP<br>C-YAW BENYOCYLINGER WOLLD                                                                                                       | MALINE TEST           | PROCEDURE   | 25 Q                                    | 506-6 USING                               |     |
| CORRECTIVE ACTION-NO<br>HIDRALLIC-A/B                                                                         | CORRECTIVE ACTION-NOIG, FAILURE NOT CONTINUED.                                                                                                                                                                                                                                                | FAR                                                                                                                                                         | <b>6</b> 000          | 5           | VES MY                                  | TES MYDRALVIC RESE                        | •   |
| A009 \ ER                                                                                                     | AL TUATOR                                                                                                                                                                                                                                                                                     | 27-06350-7                                                                                                                                                  |                       |             | 2<br>2<br>2                             | ARCH<br>104700-1                          |     |
| FAILURE MODE-CONTANT<br>CYLINDERS OUT OF MALL<br>HAVE CONE FRON THE MY                                        | HIANINATION. DURING APCHE DECK 99 PERFORMANCE, PRESUDNCY RESPONSE TEST BHONED INC TWO BOODSTER SKRWO<br>Mull, amilteis refered that the beams cylinders Pailed Due to Encessing Com'animation believed to<br>E htdrailic purping unit ambor the missile myraulic staten.                      | WORMANCE, PREGACHET RESP<br>NO CYLINGES FAILED DAE 'S<br>MISSILE MYDRAULIC SYSTEM                                                                           | MAC TEST BY           | 1 CON'ANII  | 760 BO                                  | Cater aland<br>Believed to                |     |
| CORPECTIVE ACTION-AN OIL SANPLE OF THE NILEVEL MAS FOUND TO BE BLICHTLY OUT OF ORCE PERSONNEL AT MARKEN 2/Bs. | CORPECTIVE ACTION-AN OIL SAMPLE OF THE HYDRAULIC SYSTEM SELIEVED TO SE CONTAMINATED WAS TESTED AND THE CONTAMINATIO<br>I LEVEL MAS FOUND TO SE RELIGHTLY OUT OF SPECIFICATION IN ONE CATEGORY. THE TEST RESULTS MENE SENT TO COGNIZANT AIR F<br>HEE PERSONNEL AT MARREN 278.                  | HYDRAULIC SYSTEM BELIEVED TO BE CONTAMINATED WAS TESTED AND THE CONTAMINATIO<br>SPECIFICATION IN ONE CATEGORY. THE TEST RESULTS MENT SENT TO COMIZANT AIR F | IIMTED MAS            | TESTED AL   | 5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | CONTANINATIO<br>NIZANT AIR F              |     |
| HYDRAULIC-A/B<br>BOOBIER                                                                                      | A-98-04-4185-F<br>ACTUATOR O-RIMA                                                                                                                                                                                                                                                             | 7AR<br>27-09550-9                                                                                                                                           | \$14<br>650608        | \$          | 5 0<br>5 4 3                            | TES MTDRAULIC RESE<br>ND ARCH<br>104700-9 | į   |
| FAILURE MODE-LEAG-EX<br>FROM THE BOOKTER ACT                                                                  | G-EXTERNAL. DURING VIBUAL INSPECTION OF A/2 AND MYDRAULIC MARCHE CHEEK, MYSRAULIC FLUIS NAS LEARING<br>I actuator, analtris brones frat an O-ming was deteriorated and of instrict material.                                                                                                  | H OF A/2 AND HTDRAULIC NAM<br>O-RING WAS DETERIORATED A                                                                                                     | CHE CHECK.            | HYBRAUL!    | C FLUIB                                 | Ma Caalin                                 |     |

CORRECTIVE ACTION-VENDOR HAS NOTIFIED TO SUPPLY PROPER O-RINGS.

GENERAL DYNAMICS CONVAIR DIVISION

13 108 1966

¥ .....

DIFFICULTIES REVIEW-HYDRAULIC SYSTEM-AIRBORNE

| WENICLE SITE PRI VENDOR NAME<br>DATE DIF TIME DIF OTH VENDOR PART NO | 1200 WTR YES HYDRAULIC RESE 007044<br>060609 WO ARCH<br>104700-1 | AT PRESCRIBED THES-BERWOVALVE TORBUE MOTOR COIL BPLICE MAS IMPROPERLY JOINED REBULTIME  B AND C.  NSPECT THE BPLICE JOINT AND VACUUM-IMPREGNATE THE COIL METH EPOXY. | GEGEOS STAD YES MYDRAULIC RESE SSESSA YES ARCH 104700-8 | FAILURE MOCE-OPEN, ELECTRICAL-DURING OPERATIONAL TESTS PER PROCEDURE ET-88451-1 THE BOOSTER SEAVO CYLINDER FAILED TO PROUVE AN OUTPUT SIGNAL FROM THE PEEDBACK TANNSDUCER, ADDITIONAL TESTS PIN-POINTED THE TROUBLE TO AN OPEN CIRCUIT IN THE FLEDBACK TRANSDUCER ON THE 8-1 TAN SEAVO CYLINDER, PAILURE WAS DETERMINED TO BE BUE TO MOISTURE IN UNSILICAL 8-NOT IN THE REJECTED PART. |                                                                                                               | 420122 WTR YES MYD-RESEARCH 607048<br>NO 104700-9 | FAILURE MOE-LEAK-EXTERNAL-BURFACE BETTING TYPE LEAKAGE OCCURRED AT THE INTERFACE OF BERWONALVE ACTUATOR BODY-ACTUA<br>. LEAKAGE RATE NOT CONFIRMED-VERY BLINHT BUNFACE NETTING CAUBED BY OIL REEPING PRON CAPILLARY AREA AT INTERFACE. | CORECTIVE ACTION-NO FAILURE REPORT 185UED ON ALLOMBLE BEERAGE RATES FROM HYDRAULIC COMPONENTS AND DISTRIBUTED TO<br>LL BASES-DIFFERENCES BETWEEN LEARAGE AND SEEPAGE CLARIFIED. | 1000 ETR YES HYDRALLIC RESE 007111 660114 NO ARCH 104700-1 | FAILURE MODE-ERRATIC OPERATION-DURING PRELAUNCH CHECKOUT THE UNIT OBCILLATED AT SCPS ON 8200 PSIG STREM PRESSURE-A<br>TUATOR JUNED AN ANOMY EQUIYALENT TO AN ENGINE DEFLECTION OF SIX BINNIES NAME PRESSURE HAS INCORARD TO SAIL SAIL      |
|----------------------------------------------------------------------|------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|---------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DIF DATA BOUNCE<br>PART NUMBER                                       | FAR<br>27-00380-7                                                | TORBUE MOTOR COIL BY<br>ACUM-IMPREGMATE THE                                                                                                                          | FAR<br>27-06550-9                                       | PROCEDURE 27-86451-1<br>DITIONAL TEST PIN-K<br>PAILURE MAS DETERNINE                                                                                                                                                                                                                                                                                                                   | FAR A-80-14-010F: FAR                                                                                         | 27-08550-5                                        | CURRED AT THE INTERFA<br>USED BY OIL REEPING P                                                                                                                                                                                         | EPAGE RATES PROH HYDR                                                                                                                                                           | FAR<br>27-06530-7                                          | AE UNIT OSCILLATED AT                                                                                                                                                                                                                      |
| TEST/REPORT NUMBER FAILED COMPONENT MANE                             | 3P-90-04-4114-F<br>ACTUATOR/WIRENS                               |                                                                                                                                                                      | A-95-04-3182-C<br>ACTUATOR                              | TRICAL-DURING OPGRATIONAL TESTS PER<br>NAL FROM THE PEEDSACK TRANSDUCER. AD<br>NCER ON THE S-1 TAN SERVO CYLINDER. I                                                                                                                                                                                                                                                                   | CORRECTIVE ACTION-CORRECTIVE ACTION HAS BEEN INITIATED BY FAR A-90-14-010P; FAR A-90-14-102P; RARA-30-14-612. | ACTUATOR O-RING                                   | EXTERNAL-BURFACE BETTING TYPE LEAKASE OC<br>CONTRNED-VERY ALINHT BUNFACE NETTING CA                                                                                                                                                    | CORRECTIVE ACTION-NO FAILURE REPORT ISSUED ON ALLOMBLE SEE<br>ALL BASES-DIFFERENCES BETWEEN LEARAGE AND SEEPAGE CLARIFIED.                                                      | A-98-04-3080-F<br>ACTUATOR A39EMBLY                        | NTIC OPERATION-DURING PRELAUNCH CHECKOUT THE UNIT OSCILLATED AT SCPS ON 8200 PSIG STSTEM PRESSURE-(<br>AMOUNT ERVIVALENT TO AN EMBINE DEFLECTION OF SIX MINUTES WHEN PRESSURE WAS INCORASTO TO SUCK SOLE                                   |
| 8781EN<br>8UE-3781EN                                                 | H7DRAULIC-A/8<br>80031ER                                         | FAILURE HODE-FAIL TO OPERAIE IN OPEN CIRCUIT BETWEEN PINS CORRECTIVE ACTION-VENDOR TO                                                                                | HTDRAULIC-A/B<br>BOOSTER                                | FAILURE MODE-OPEN, ELECTRIS<br>O PRODUCE AN OUTPUT SIGNAL<br>IN THE FLEDBACK TRANSOUCER<br>8-NOT IN THE REJECTED PART,                                                                                                                                                                                                                                                                 | CORRECTIVE ACTION-CORRE                                                                                       | BOUSTER                                           | FALLURE MODE-LEAK-EXTER                                                                                                                                                                                                                | CORRECTIVE ACTION-NO FA<br>ALL BASES-DIFFERENCES DE                                                                                                                             | HTDRAULIC-A/B<br>BOOSTER                                   | FAILURE MODE-ERRATIC OPERATION-DURING PRELAUMCH CHECKGUT THE UNIT OBCILLATED AT 9CP9 ON 8200 P916 STSTEM PRESSURE-A<br>CTUATOR JUMPED AN ANOUNT ERVIVALENT TO AN ENGINE DEFLECTION OF BIX MINUTES WHEN PRESSURE WAS INCREASED TO 3003 P316 |

CORRECTIVE ACTION-ABBENGLIES MEETING MEW SYSTEM DAMPING REQUIRENENTS PHASED INTO PROGRAM.

9941 WAT 91

| 9991 107 91                                                                                             | DIFFICULTIES REVIEW-HYDRAULIC STRIEM-AIRBORNE                                                                                                                                                                                                                                                                                                              | MAULIC STREM-AIRBOR                                             | ¥                   |                                                 |                                           | ſ           |
|---------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|---------------------|-------------------------------------------------|-------------------------------------------|-------------|
| 37.57EM<br>\$4.6 - 37.37EM                                                                              | TESTAREPORT NUMBER<br>FAILED COMPONENT NAME                                                                                                                                                                                                                                                                                                                | DIF DATA BOUNCE<br>PART NUMBER                                  | VEHICLE<br>DATE DIF | 817E<br>710E 01F                                | PRI VENDOR NAME<br>OTH VENDOR PART NO     | <del></del> |
| HTDRAIL IC-A/B<br>BOX STFR                                                                              | A6-88-04-3088-F<br>ACTUATOR/BEAL                                                                                                                                                                                                                                                                                                                           | FAR<br>27-06550-7                                               | 1210                | C74                                             | YES HYDRAULIC RESE<br>NO ARCH<br>104700-1 |             |
| PAILURE MOE-LEAR-EXTERNAL TEFLON BACKUP RING FOUND CORECTIVE ACTION-VENDOR   F A HUMAN ERROR FAILURE OF | PAILUME MODE-LEAR-EXTERNAL-HYDRAULIC OIL LEAKED FROM PISTON SHAFT SEAL AT LONGR END OF ACTUATON DURING SYSTEM CMECA<br>TEFLOM SACKUP RING FOUND INCORRECTLY INSTALLEG-O-RING MAS BADLY MORN.<br>CORRECTIVE ACTION-WENDOR INFORMED AND STATED THAT ALL POSSIBLE CONTROL IS SEING EXERCISED TO PREVENT A RECURRENCE O<br>A HUMAN ERROR FAILURE OF THIS TYPE. | H BABET BEAL AT LONE<br>1 BADLE WORN.<br>11 BLE CONTROL IS BEIN | THE OF T            | CTM 108 B                                       | UNING STRICK CMECK<br>ENT A RECURRENCE O  |             |
| HYDRAULIC-AZ)<br>BOOSTER                                                                                | A-B8-10-084F<br>HTDRAUL!C ACCUMULATOR                                                                                                                                                                                                                                                                                                                      | FAR<br>27-06354-3                                               | 042110              | avc.                                            | VES PEACOCK ENGA.<br>NO CO.<br>S1810-8    | 06100       |
| FAILURE MODE-INTERNAL L CORRECTIVE ACTION-FAILURE                                                       | FAILURE HODE-INTERNAL LEAK, PAECHARGE 648 LEARAGE ACROSS PISTON INTO THE HYDRAULIC SYSTEM.<br>Charective action-failure not confinmed, a test program comered by top 518 is presently beath conducted to memby                                                                                                                                             | VISTON INTO THE HYDRA                                           | ULIC BYBTE          | #.<br>E. 176<br>CO                              | DUCTED TO REMEDY T                        |             |
|                                                                                                         | AE61-1862P1-601-00-06                                                                                                                                                                                                                                                                                                                                      | Plet                                                            | 02115               | = 4                                             | 15                                        | 944         |
| FAILURE MODE-LEAK EXTER AFFER STACING. SYSTEM EFFECT-DOPLETION WEMICLE CFFECT-LOSS OF                   | FAILURE MOLE-LEAK EXTERMAL. DATA INDICATED A MYDRANAIC PLUID LEAK IN THE RETURN PRESSURE SYSTEM STARTED D.S MECOMDS<br>System effect-dopletion of Libuid Supply, mydranaic system Pressure Lost.<br>Wemicle effect-loss of Vemicle Stability.                                                                                                              | ID LEAK IN THE RETUR<br>  PRESSURE LAST.                        | 3600                | 2                                               | TANTED D.S MCCOND.                        |             |
| CORRECTIVE ACTION-NOME, HTDRALLIC-A/B BODSIER                                                           | CT-98-10-003-F<br>BOOSTER HYDRAHLIC PLUID TANK                                                                                                                                                                                                                                                                                                             | FAR<br>27-06551-3                                               | 91210               | <b>E</b>                                        | TES DEMON MFG.                            | <b>3</b>    |
| PATTURE MODE-LEAK INTERMAL-<br>, OF EG PATS ON THE GAC SIGE<br>RATING TO THE PIBTON O-RING.             | IK INTERNAL-LEAKING GABEOUB HIMOGEN INTO THE HYDRAULIC BIDE OF THE UNIT WITH A PRESSURE DIFFERENTIA<br>He cac bide, possible caure of reported learage is torbue paint on penale pont threads and albo him<br>Hom o-rive.                                                                                                                                  | NE HTBRAULIC BIDE OF<br>LARAGE IB TORBUE PAIN                   | 714 UNIT 1 ON TEMBE | 2 4 1 1 2 2 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 | ESSURE DIFFERENTIL                        |             |
| COMPECTIVE ACTION-PAILU<br>OWE CERCONSTANCES IN ONE                                                     | COMECTIVE ACTION-FAILURE NOT CONTINUED- RELIABILITY CONTROL ENGINEERING HAS MOTIFIED COSMIZANT PERSONNEL OF THE AS<br>WE CIRCUMSTANCES IN ORDER TO PREVENT RECHARENCE OF THE SITUATION.                                                                                                                                                                    | IO. ENGINEERING MAB M<br>THATION.                               | 0117:58 60          | PMI ZANT                                        | ENSONIEL OF THE A                         |             |

SEMERAL DYNAMICS

\*

The second

A. T

Ą

|                  |                                               | ENDOR NAME<br>NOOR PART NO                                                                    | 728 PEACOCK MACH.<br>NO CO.<br>81316-3 |
|------------------|-----------------------------------------------|-----------------------------------------------------------------------------------------------|----------------------------------------|
|                  |                                               | 7 ÿ                                                                                           | 728 PEAC<br>NO CO.                     |
|                  |                                               |                                                                                               | - 2                                    |
|                  |                                               | 11.0                                                                                          | . 9vc.                                 |
|                  | ¥                                             | VEHICLE<br>DATE DIF                                                                           | 011£11 BYC.                            |
| 18106            | ULIC BYSTEN-AIRBOR                            | DIF DATA SOURCE WEMICLE SITE PRI VENDOR NAME PART NUMBER DATE DIF TIME DIF OTH VENDOR PART NO | FAR<br>R7-0886-3                       |
| COMVAIR DIVISION | DIFFICULTIES REVIEW-HYDRAULIC SYSTEM-AIABORNE | TEST/REPORT NUMBER<br>FAILED COMPONENT NAME                                                   | A-84-10-083F<br>HTORAULIC ACCUMULATON  |
| 9901 WOT 81      |                                               | 3737EH<br>848-878TEH                                                                          | HTDRAULIC-A/B<br>BOOSTER               |

FAILURE MODE-LEAR-INTERNAL LEARAGE ACROSS THE PISTON INTO THE HYDRALLIC SYSTEM.

181000

91310-3

|                                                                                                                     | 007112                                                   |                                                                                                                                               |                                                                                            | 26 10 40                          |                                                                                       |                                                  | •                                           |                                                                                                                                     |
|---------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|-----------------------------------|---------------------------------------------------------------------------------------|--------------------------------------------------|---------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| OLVE THIS TYPE OF F                                                                                                 | LINCOLN YES HYDRAULIC RESE BOTISE<br>NO ARCH<br>104700-9 | DER. FAILURE NOT CO                                                                                                                           |                                                                                            | YES RESISTOFLEX<br>NO RELEES-47   |                                                                                       |                                                  | YES PEACOCK EMG.<br>NO 51310-3              | 7 8 DUE TO A POOR BU                                                                                                                |
| UCTEB TO 8                                                                                                          | רואכסרא                                                  | THE CYLIN                                                                                                                                     | ē                                                                                          | ETR                               |                                                                                       |                                                  | E T A                                       | FAILURE W                                                                                                                           |
| BEING COM                                                                                                           | 902119                                                   | PATE FROM                                                                                                                                     | WAS INITIA                                                                                 | 011110                            | WE JOINT.                                                                             |                                                  | 1000                                        | : OIL BIDE.                                                                                                                         |
| MAP 403E IS PRESENTLY                                                                                               | FA<br>27-06550-0                                         | ID DAIMING AT A STEADY                                                                                                                        | NO CORRECTIVE ACTION                                                                       | FAR<br>E7-08600-47                | I END OF THE PRAID BLEE                                                               |                                                  | FA4<br>E7-06534-3                           | ROBS THE PISTON TO THE                                                                                                              |
| CORRECTIVE ACTION-TEST PROGRAM COVERED BY TCP 514 AND MAP 403R IS PRESENTLY BEING CONDUCTED TO SOLVE THIS TYPE OF F | A-8L-64-3079-F<br>ACTUATOR/3EAL                          | FAILURE MODE-LEAR-EXTERNAL-HYDRAULIC PLUID MA, DETECTED DRIPPING AT A STEADY PATE FROM THE CYLINDER. FAILURE NOT CO<br>FIRMED DURING TESTING. | CORRECTIVE ACTION-SINCE THE FAILURE MAS NOT CONFIRMED, NO CORRECTIVE ACTION WAS INITIATED. | 96-10-092F<br>HYDAAULIC FLEK HOBE | FAILURE MODE-EXTERMAL LEAR-OIL LEARAGE AT THE ACTUATOR END OF THE GRAID BLEEVE JOINT. | CORRECTIVE ACTION-UNKNOWN, FAILURE NOT CONTINED. | SA-SD-10-091F<br>BOOSTER ACCUMALATOR O-RING | FAILURE MODE-LEAR-INTERMAL LEARAGE OF PRECHARGE GAB ACROBS THE PISTON TO THE OIL SIDE. FAILURE W'S DUE TO A POOR BU<br>LITY O RING. |
| CORRECTIVE ACTION-TEST<br>ALLURE.                                                                                   | MTDRAULIC-A/B<br>BODS1ER                                 | FAILURE MODE-LEAK-EXTER<br>NEIRMED DURING TESTING.                                                                                            | CORRECTIVE ACTION-SINCE                                                                    | HTDRAULIC-A/B<br>BODSTER          | FAILURE MODE-EXTERMAL &                                                               | CORRECTIVE ACTION-LINKING                        | HY HAULIC-A B<br>BOOSTER                    | FAILURE MODE-LEAR-INTER                                                                                                             |

CORRECTIVE ACTION-VENYOR MAS NOTIFIED TO IMPROVE HIS G.C. ON O RINGS.

FAILURE MODE-TAIL DURING OPERATION-BERVOYALVE MALFUNCTIONED DURING APCHE CHECK-FAILURE DUE TO ELECTRICALLY SHONTED BERYOVALVE TORBUE MOTOR COIL-BHORT CAUSED BY OVERLOAD AND BOURCE OF OVERLOAD NOT DETERMINED-FAILURE CONSIDERED AS HU MAN INSTRATED. FAIRCMIL YES MYD-RESEARCH D NO 104700-9 194700-8 410017 27-04850-0 A-BK-04-8067-F ACTUATOR VALVE-BERND ATDRAULIC-A/B

GENERAL DYNAMICA CONVAIR DIVIBION

COMVAIR

11 1CM 1966

;

Í

|                                   |                                                                                                                                                                                                                         | DIFFICULTIES REVIEW-WDRAULIC SYSTEM-AIRSORME | ¥                                                                      |                  |                                     |                                                     | ,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|-----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|------------------------------------------------------------------------|------------------|-------------------------------------|-----------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 8781EH<br>806-8781EH              | TEST/SEPORT NUMBER<br>FAILED COMPONENT NAME                                                                                                                                                                             | CIF DATA BOJACE<br>PART NUMBER               | VEHICLE<br>DATE DIF                                                    | 817E<br>71W. 01F | PRI VENDOR                          | BITE PRI VENDOR NAME<br>TIM, BIF OTH VENDOR PART NO | ····                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|                                   |                                                                                                                                                                                                                         |                                              |                                                                        |                  |                                     |                                                     | 1111                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| CORRECTIVE ACTION                 | CORRECTIVE ACTION-INVESTIGATION OF CAUSE OF OVERLOAD ON BERNOVALVE COIL TO BE CONTINUED. 60/C ADVISED SITE PERSONNE<br>L to pare precautions against human initiated Pailures.                                          | DN BERNOVALVE COIL TO BE                     | CONTINUED.                                                             | 66/C AD          | 116 0381                            | PERSONAL S                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| HTOPAULIC-A/B                     | 8K-10-085<br>ACCUMULATOR PRESSURE GAGE                                                                                                                                                                                  | FAR<br>27-06562-3                            | 146                                                                    | 77.              | 7£3 BOCH<br>BO CO.<br>6803          | TES ROCHESTER MG.<br>NO CO.<br>8803-718-1           | •                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| FAILURE MODC-EXIL                 | FAILURE MODC-EXTERNAL LEAR-LEKARSE CAUSED BY A CRACK MAICH EXTENDED FICH CHE OF THE FYTERNAL WEINCH FLATS THE FITTING INTO THE INTERNAL THREADED AREA. OVERTORBUINS PROVIDED A CONDITION FOR STRESS CORNOSION CRICKING. | MICH ENTENDED FICH CHE.                      | OF THE FRIEMAL WENCH FLATS THROUGH T<br>FOR STRESS CORROSION CRICKING. | ANAL WED         | KH FLATS<br>I CRACKIM               | THROUGH T                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| CORRECTIVE ACTION-NOME.           | N-NOIE,                                                                                                                                                                                                                 |                                              |                                                                        |                  |                                     |                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| ATDRAULIC-A/B                     | AA61-0103/P6-4CHO-02-104/C2                                                                                                                                                                                             | COMPOST TE-FRE/DFL                           | 1040                                                                   | 2                | 5 Q                                 |                                                     | £ 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| FAILURE HODE-LEAF                 | FAILURE MODE-LEAF-EXTERNAL. THERE WAS A HYDRAULIC LEAK AT A B NUT.                                                                                                                                                      | CATA B MUT.                                  |                                                                        |                  |                                     |                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| SYSTEM EFFECT-NONE.               | ý                                                                                                                                                                                                                       |                                              |                                                                        |                  |                                     |                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| VEHICLE EFFECT-NOME.              | O.E.                                                                                                                                                                                                                    |                                              |                                                                        |                  |                                     |                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| CORRECTIVE ACTION                 | H-TIGHTEN 9 MUT.                                                                                                                                                                                                        |                                              |                                                                        |                  |                                     |                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| HIDRAULIC-A/B                     | PH-10-GTB<br>HYDRAILIC PURT, O-RING                                                                                                                                                                                     | FAR<br>87-06366.                             | 44£<br>610780                                                          | PORBE            | VES VICKERS                         | VICKERS<br>AA-60884-R-8A                            | ***                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| FAILURE MODE-LEAR<br>NA AUSEMBLY. | FAILURE MOSFLEAR-EXTERNIL-LEARAGE FROM AROUND THE IMLET PORT FLAMEL. LEARAGE CAUSED BY O RING BANAGE INCURRED DURI<br>N AUSEMBLY:                                                                                       | LET PORT FLINKE. LEAKUSE                     | CAUSED BY                                                              | 3<br>1<br>2<br>0 | INGE INC                            | MRZD DUM!                                           | and the second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second s |
| CONKECTIVE ACTION                 | COMMECTIVE ACTION-VENCON NOTIFIED THAT HE PREVENT O RIMS DAMMSE DURINS ASSENBLY                                                                                                                                         | ING DAMAGE DURINS ABBENEI                    | ٠,                                                                     |                  |                                     |                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| #104414.16-478<br>BOONTER         | 90-04-1008F<br>ACTUATOR ASSEMBLY, MODSTEA                                                                                                                                                                               | FAR<br>27-08/50-0                            | E4E<br>6107E7                                                          | a IV             | YES AVDRAUL!<br>NO ARCH<br>104700-9 | YES AVDRAULIC RESE<br>NO ARCH<br>104700-9           | :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| TAILUNE MODE-LEAI                 | TAILUNE MODE-LEAK INTERMAL. LEAKAGE OF ATDRAULIC PLUID FROM THE ITEM.                                                                                                                                                   | D TRUE INE LIEM.                             |                                                                        |                  |                                     |                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| COARECTIVE ACTION                 | CORRECTIVE ACTION CONTINUED BULVELLANCE OF THEM ALTHOUGH ND MALFUNCTION COULD BE FOUND. THEM ACCEPTABLE TON BERVIC                                                                                                      | OUGH NO MALPUNCTION LOUAL                    | DE FOUND.                                                              | . 17EK AC        | CEPTABLE                            | 708 BERVIC                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                                   |                                                                                                                                                                                                                         |                                              |                                                                        |                  |                                     |                                                     | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

\*\*\*\*\*\*\*\*\*\*\*

|           | 1 VI 8 1 OF |
|-----------|-------------|
| SENETAL D | CONVAIR     |
|           |             |

|                                                                                                           | DIFFICULTIES REVIEW-HTDRAULIC STREEM-SIRBGONG                                                                                                                                                                                                                                                                                             | RAULIC BYSTEN-AIRBOR                                                 | ¥                                     |                                |                                           |                               |        |
|-----------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|---------------------------------------|--------------------------------|-------------------------------------------|-------------------------------|--------|
| 8787EN<br>846-8-84                                                                                        | TEST/REPORT MUMBER<br>PAILED COMPORENT NAME                                                                                                                                                                                                                                                                                               | BIF BATA BOUNCE<br>PART NUMBER                                       | VEHICLE<br>DATE BIF                   | 117E                           | PRI VENDOR NAME<br>OTH VENDOR PART        | VENDOR NAME<br>VENDOR PART NO |        |
| HTCRAIL IC-A/B<br>BODSIER                                                                                 | BE-10-041 FAR BOOSTER HERALIC ACCUMULATOR O-RI E7-06554-5 MS                                                                                                                                                                                                                                                                              | FAR<br>1 27-04554-3                                                  | 200<br>10721                          | FAIRCHIL YES                   |                                           | i                             | 111000 |
| FAILUSE MODE-INTERNAL LI<br>V MANUFACTURED O RING.                                                        | LEAR-PRE-CHARGE GAS LEARAGE ACRODA THE PISTON TO THE OIL SIDE. LEAKAGE CAUSED BY AN INPROPERL                                                                                                                                                                                                                                             | AE PISTON TO THE CAL                                                 | 10C. LEA                              | KA <b>SE</b> CAUS              | £6 &7 AN 18                               | PROPERL                       |        |
| CORRECTIVE ACTION-VENDOR                                                                                  | A NA. NOTIFIED TO IMPROVE THEIR &.C.                                                                                                                                                                                                                                                                                                      |                                                                      |                                       |                                |                                           |                               |        |
| HTD4AU.IC-A-B<br>BOOSTER                                                                                  | BM-G4-E87<br>ACTUATON ASSEMBLY                                                                                                                                                                                                                                                                                                            | FAR<br>27-08350-8                                                    | 21E<br>0107E0                         | <b>2</b> 5                     | MO HYDRAULIC RESE<br>MO ARCH<br>104700-9  | IC RESE                       |        |
| FALLUE MOGE-ERRATIC ON<br>CE TESTS. SYSTEM PRESSUR!<br>NE FALLUE. TE'TS INDICA<br>TH ANY OF THE PRESENTLY | AFIC OPERATION-THE ACTUATOR REPORTEDLY INDUCED EXCESSIVE ENGINE VIBRATION DURING ACTUATOR PERFORMAN PRESSURE DURING THE AEPORTED MALFUNCTION MAS 8750 AND 3000 PSS6. FAILURE AMALTSIS DID NOT CONFIRM TA HOLICATE THE ACTUATOR ASSEMBLY, S/N 010-1665, IS NOT A FAILED UNIT. AND THAT IT CAN BE OPERATED MISSEMILY USED BERNO AMPLIFIERS. | ACED EXCESSIVE EMBIN<br>18 E750 AND 3000 PBI<br>185, 18 NOT A FAILED | E VIBRATIO<br>6. FAILURE<br>UNIT. AND | A BURING<br>AMALTEE<br>THAT IT | ACTUATOR PE DID MOT CO                    | FORMAN<br>FIRM T<br>VIED MI   |        |
| CORRECTIVE ACTION-NOME-                                                                                   | COMECTIVE ACTION-NOME-60/C FIELD PERSONNEL MAYE, BREN INFORMED THAT THIS UNIT WAS NOT THE CAUME OF THE REPORTED MA<br>FUNCTION.                                                                                                                                                                                                           | DAMED THAT THIS UNIT                                                 | 101                                   | A CAUBE                        | OF THE REPO                               | 170 A                         |        |
| H104AULIC-A/8<br>B0051Eq                                                                                  | AE61-0361/FC-4CO-01-083<br>ACTUATOR ASSEMBLY, PEEDBACK TRANSO<br>UCER                                                                                                                                                                                                                                                                     | COMPOST TE-FACTORY<br>87-08550-7                                     | 930<br>610714                         |                                | TES HYDRAULIC RESE<br>ND ARCH<br>104700-1 | IC RESE                       | 35.000 |
| FAILURE MODE-FAIL DURTHINE COMPOSITE TEST.                                                                | L DURING OPERATION-BOOSTER NO. 1 TAN PEEDSACK PARNSOUCER INDICATED UNEXPECTED OSCILLATIONS DURING T                                                                                                                                                                                                                                       | ICK TAMBOUCER INDIC                                                  | 47ED UEXP                             | 1C110 00C                      | 11.A71016 0                               | *                             |        |
| STSTEN EFFECT-ENRATIC OF                                                                                  | RATIC OPERATION.                                                                                                                                                                                                                                                                                                                          |                                                                      |                                       |                                |                                           |                               |        |
| CORRECTIVE ACTION-A COM                                                                                   | WHICLE EFFECT-COMPOSITE RESCHEDALD. COMPOSITE RETENT REQUIRED.<br>CORRECTIVE ACTION-A COMPLETE FIRE AND BLEED OPERATION WAS PERFORMED ON THE HYDRAULIC SYNTEM.                                                                                                                                                                            | JIRED.<br>Trponed on the Hyd                                         | ANALIC BYS                            | į                              |                                           |                               |        |
| HTD4a U. I C-A / B<br>BOOSTER                                                                             | BF-04-232<br>ACTUATOR ASSEMBLY                                                                                                                                                                                                                                                                                                            | FAR<br>27-06353-9                                                    | 46£<br>•1070                          | 5                              | TES HTDRAMLIC AESE<br>NO ARCH<br>184700-9 | 1C AESC                       | 32.00  |
| FAILUME MODE-FAILED DURI<br>C FILL AND BLEED OPERATIO                                                     | LED DURING OPERATION-THE ACTUATOR REPORTEDLY CAUSED THE SOCSTER EMSING TO VISHATE SURING A HIDRANLE OPERATION. FAILURE AMALYSIS BID NOT COMPIRM THE FAILURE.                                                                                                                                                                              | .T CAUBED THE BOOATE ITHE FAILURE.                                   | Casta 1                               | TARATE                         | * * *                                     | PORAULI                       |        |
| CONFECTIVE ACTION-THIB A<br>OCEDUMES TO IDENTIFY ALL,<br>MASSE ADJUSTMENT BEFORE                          | CORRECTIVE ACTION-THIS ASSEMBLY, S/N 104-1150 WILL BE PROCESSED BY 40/C IN ACCORDANCE WITH CURRENTLY "STABLISHED PA<br>OCEDIMES TO IDENTIFY ALL HYDRAULIC RESEARCH ACTUATORS AS STABLE, OR OBCILLATION PROME. 80/C WILL ACCOMPLISH NINDR LI<br>MASE ADJUSTICHT BEFORE RETURNING THE UNIT TO AGRICE.                                       | 18ED BY 40/C IN ACC<br>18LE, OR OSCILLATION                          | PROME ME                              | TH CURREN                      | CCOMPLISH N                               | 7.00 Pa                       |        |

۲

SENERAL DYNAHICS CONVAIR BIYISION

11 104 1066

|                                                                                                       | DIFFICULTIES REVIEW-MYDRAULIC STRIKM-AIRBORNE                                                                                                                                                                                                                                                                                        | AULIC BYBIEN-AIRBON                                               | ¥                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |      |                                                                                                       |                                                                                                                |
|-------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|
| 31317M<br>8-4-373EM                                                                                   | TESTAREPORT HUMBER<br>PAILED COMPORENT NAME                                                                                                                                                                                                                                                                                          | DIF DATA SOURCE<br>PART NUMBER                                    | WEHICLE<br>DATE BIF        | 31 IE<br>11ME 917                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <br> | DATE BIF TIME BIF OTH VENDOR PART NO                                                                  |                                                                                                                |
| HTG42.1C-4/8<br>80037E4                                                                               | BX-04-E48<br>ACTUATOR BERNO VALVE                                                                                                                                                                                                                                                                                                    | FAR<br>87-06850-9                                                 | 30E<br>010017              | 427                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | ÷ 8  | TES HTDRAULIC RESE<br>NO ARCH<br>104700-8                                                             | :                                                                                                              |
| FAILURE MODE-EXTERNAL<br>EPAGE PAST THE SERVO VA<br>THE PRESENCE OF A RELAT<br>REGULAR. MOLDING FLADM | ERNAL LEAK, FLUID APPEARED TO LEAR THROUGH THE BERNO VALUE CABE, FAILURE AMALTBIS ATTRIBUTES OIL BE AND LEAK FOUR CHAIRER DUE TO A DEPECTIVE O-RIMS BEAL IN THE END CAP FOR THE FILTER PLUS CHAIRER DUE TO INFLATIVELY DEEP FISSURE IN THE MOLDING BEAN, CROSS BECTIONAL BHAPE OF THE MEAL WAS DEFONNED AND INFLAMES WERE EXCESSIVE. | THE BERNO VALVE CAI<br>SEAL IN THE END CAI<br>IN. CROBB BECTIONLE | F. Faller                  | FAMILY PER PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINCE PRINC | .33  | ILUME AMALYBIS ATTRIBUTES OIL SE<br>THE PILTER PLUG CHANGES DUE TO<br>OF THE BEAL WAS DEFORMED AND IN | and the second second second second second second second second second second second second second second seco |
| WHICLE EFFECT-DELAY. COALCTINE ACTION-60/C H, 60/C OFL INSPECTORS PAILURE.                            | WENICLE EFFECT-DELAY.<br>CONTCITYE ACTION-60/C OUTSIDE PRODUCTION IMPRETIONIOPI) HAS BEEN LADE COMJEANT OF PHE<br>1. 60/C OPI INSPECTORS WILL EXERCISE VISILANCE DURING BERNO VALVE ASSEMBLY TO PREVENT PHE<br>VILUME.                                                                                                               | MA BEEN MADE COSAS<br>MALWE ABBENDLY TO                           | TANT OF THE<br>PREVENT THE |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 8 3  | AMALTEIS OF THE FAILED ITE<br>RECUMBENCE OF THE BUBLECT                                               |                                                                                                                |
| HTDRAM IC-A/B                                                                                         | 88-10-078<br>HTDRAULIC ACCUMALATOR BEAL                                                                                                                                                                                                                                                                                              | FAR<br>27-00554-5                                                 | 970<br>910019              | £                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 58   | 7g8 Pracoca Emb.<br>NO 31310-3                                                                        | :                                                                                                              |
| FAILURE MONE-INTERNAL CORRECTIVE ACTION-FAIL                                                          | FAILURE MONE-INTERMAL LEAR. LEARAGE OF PRECNARGE 648 ACROSS PISTON INTO THE STRICTS WYBRANLIE OIL.  CORRECTIVE ACTION-FAILURE NOT COMPINED. ACTION INITIATED TO MAKE AN EMBINEERINS EVALUATION TO ALLOW FOR THE TECHNIAL DIRECTION TO ELIMINATE 648 LEARAGE PAST THE PISTON.                                                         | D PISTON INTO THE S                                               | 1870 HTBA                  | MALIC ON 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | . }  | POR THE TECHNI                                                                                        |                                                                                                                |
| HTGGALLIC-E/B<br>BOOBIER                                                                              | MA-10-074<br>HIDABULIS ACCUMALATOR                                                                                                                                                                                                                                                                                                   | FAR<br>27-00356-3                                                 | 910919                     | E                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 58   | TES PEACOCK ENS<br>NO \$1310-3                                                                        | :                                                                                                              |
| PAILURE MODE-INIERNAL                                                                                 | IESHAL LEAR. LEARAGE OF PRECHARGE 648 ACROSS PISTON INTO THE STRTEN NYBRAMAIC OUL.                                                                                                                                                                                                                                                   | 4 P101GB 1810 14E                                                 | 7 B TES ATTE               | PR 14 01                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |      |                                                                                                       |                                                                                                                |
| CORECTIVE ACTION-FALL                                                                                 | CORECTIVE ACTION-PRILUME NOT CONTINUED. ACTION INITIATED TO MAKE AN EMBINEERING EVALUATION OF MALUE FOR THE TACH                                                                                                                                                                                                                     | TO PARE AN ENGINEED                                               |                            | 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |      |                                                                                                       | <del></del>                                                                                                    |
| HTDEAULIC-A/B                                                                                         | 98-10-076<br>HTDRAULIC ACCUMALATOR, 0-8116                                                                                                                                                                                                                                                                                           | FAR<br>27-08354-3                                                 | 136                        | 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 5 8  | 763 PEACOCA EMS.<br>NO 81310-3                                                                        | :                                                                                                              |
| PAILURE MOCE-INTERNAL                                                                                 | TERMAL LEMA. LEMANCE OF PRECHARGE SAS ACROSS PISTON INTO THE STREEN MYBRANLIS OIL.                                                                                                                                                                                                                                                   | 4 PISTON 1810 THE (                                               | 7.8 TES ATE                | MALIC OF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | j    |                                                                                                       |                                                                                                                |
| CORRECTIVE ACTION-PAI                                                                                 | CORRECTIVE ACTION-PAILLME NOT CONTINUED. ACTION INITIATED TO MAKE AN EMBINE CAL DIRECTION TO ELIMINATE SAS LEARAGE PAST THE PISTON.                                                                                                                                                                                                  | TO MAKE AN EMBINE                                                 | 1 th Curr                  | 01 18 TO                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 574  | IN EVALUATION TO ALLOW FOR THE TECHNI                                                                 |                                                                                                                |
|                                                                                                       |                                                                                                                                                                                                                                                                                                                                      |                                                                   |                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |      |                                                                                                       |                                                                                                                |

CONVAIR BIVISION

15 Jun 1988

⋖

.

|                                                                                                      | DIFFICUATIES REVIEW-WYDRAULIC STRIEM-AIRBORLE                                                                                                                                                                                                           | WALL SYSTEM-AIRBON                      | ä                      |             |                             |                                                                     |          |
|------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|------------------------|-------------|-----------------------------|---------------------------------------------------------------------|----------|
| 818-815H                                                                                             | TEST/REPORT NUMBER PAILED COMPONENT NAME                                                                                                                                                                                                                | BIF DATA SOURCE<br>PART NUMBER          | WHICLE<br>DATE BIF     | 017K        | 7 to                        | WENTELE BITE PAI WENDER NAME NO DATE BIT THE BIT OUR VENDER PART NO |          |
| M 7 54 4 4 1 5 - 4 / 8 600 4 1 5 4 / 8                                                               | AC-82-0008/81-603-A2-01<br>ACCUMULA TOR                                                                                                                                                                                                                 | CAP11 WE                                | 0:00:0                 | 9-1/91C     | 88                          |                                                                     | 3        |
| FAILURE MODE-PRENATURE OPERATION, OBSERVER CUTOFF ND HILLOP (SUSTAINER- VERNIER HYDRAULIC PRESSURE). | EMATURE OPERATION. OBSERVER CUTOFF WELD CHART CEDERWEN HISS MEAD MIGGSP 185 HTDRAULIC ACCUMULATOR! A<br>IMER- Werier Htdraulic Presburg).                                                                                                               | GERRYN HIES MEA                         | 3 4000tm 0             | DE HTDRAL   | LIC ACC                     | UMULATOR! A                                                         |          |
| SYSTEM EFFECT-OPERATION STOPS PREMATURELY.                                                           | HOPE PREMATURELY.                                                                                                                                                                                                                                       |                                         |                        |             |                             |                                                                     |          |
| MENICLE EFFECT-PRENATURE                                                                             | MENATURE PROPULSION CUTOFF.                                                                                                                                                                                                                             |                                         |                        |             |                             |                                                                     |          |
| CORRECTIVE ACTION-HOME.                                                                              |                                                                                                                                                                                                                                                         |                                         |                        |             |                             |                                                                     |          |
| HYDRAULIC-A/B                                                                                        | #0-10-047<br>HTGRAULIC ACCUMAANTOR, O-RIMB                                                                                                                                                                                                              | FAR<br>27-08554-3                       | 909019                 | Ę           | 76.8 PC                     | TES PEACOCK EMS.<br>ND 51310-3                                      | *        |
| FAILURE MOR-INTERNAL LEJ                                                                             | FAILURE MODE-INTERNAL LEAK, LEAKAGE OF GAS PAST THE PISTON INTO THE STRIEN HTDRANLIC OLL. MAT DE CAUBED BY MORMAL O<br>R MEAR NOTIVAL CONTANIMATION ABOUT THE PISTON O RING                                                                             | NTO THE STATES AND                      | RANE IC COL            | *           | 2                           | BT NORMAL O                                                         |          |
| CORRECTIVE ACTION- RECONM                                                                            | CORRECTIVE ACTION-RECONSTRUCT THE ACCUMULATOR BE REMOVED FROM THE SYSTEM.                                                                                                                                                                               | D FROM THE SYSTEM.                      |                        |             |                             |                                                                     |          |
| HYDRAULIC-A/B                                                                                        | 96-10-074<br>BODSTER HYDRAULIC TAME                                                                                                                                                                                                                     | FAR<br>E7-06551-3                       | 1000<br>9103 <b>64</b> | E           | TES BENGOM                  | 3 5                                                                 | 1        |
| FAILURE HODE-OUT OF TOLES                                                                            | OF TOLERANCE-DID CAPS NEME LODGE ON BARMEL. LOCKIMINES FOR CAPS NEME BET INCHES UNDERSIZE.                                                                                                                                                              | LOCANINES FOR CAP                       | . KK is                | 7 INCHES    | MOCASI                      | ä                                                                   |          |
| CONSECTIVE ACTION-UNIT NA<br>DE REMONAZO.                                                            | CONSECTIVE ACTION-UNIT MAS MISSED ON B.C. BARNEY REGAEST NO. 15, WHICH REQUIRED ALL UNITS NETH UNDERSIED WIRES TO                                                                                                                                       | 15, WICH REQUIRE                        | D ALL SOLT             | 5<br>2<br>3 | DE US I SE                  | D WIRES TO                                                          |          |
| MTD4AULIC-4/8<br>30081E4                                                                             | 64-04-221<br>ACTUATOR-BOODTER EMBINE                                                                                                                                                                                                                    | FAR<br>E7-06550-7                       | 1010<br>01010          | 2           | TES HTDE<br>NO ARCH<br>1047 | TES MTDRAULIC RESE 087000<br>ND ARCH<br>104700-1                    | \$<br>\$ |
| FAILUME MODE-ERRATIC OPER<br>C FILL AND ALED TEST, CON<br>BUAL ACCEPTANCE TESTS IN R                 | ATIC OPERATION. THE BOOSTER EMEINE ACTUATORS CHATTERED AND VIBRATED BURING PREPARATION FOR HYDRAULI<br>Test. Co-cumently. Beveral actuator assemblies were rejected for similar performance buring Indivi<br>Tests in receiving imprection at Plant 71. | CHATTERED AND VIB-<br>IES MERE REJECTED | TOT STREET             | M PERFOR    | ATION P                     | OR HYDRAUL!                                                         |          |

COMECTIVE ACTION-GENERAL DYNAMICS/CONVAIR HAS MODIFIED ALL SERVO ANDLIFIERS. EXCEPT THOSE USED WITH (ROUNDCAN) AUT OPTIOTS FOR ALL D. E. AND F SERIES MISSILES, EXCEPT THOSE HAVING INITIAL OPERATIONAL CAPABILITY IS-1003. 60 MILL 10E NIIFF BT MARKING ALL HORAULIC RESEARCH ACTUATORS WHICH DON'T MAY DECILLATION CHARACTERISTICS AND RESEART FOR USE ON 9-10C MISSILES. UNLARKED ACTUATORS WILL DE USES ON OTHER D. E. AND F MISSILES.

CONVAIR BIVISION

| 100 100                                                                        | DIPPICULTIES REVIEW-HTBRAULIC SYSTEM-AIRBORNE                                                                                                                                                                                                                              | RAILIC SYSTEM-AIRBOR                          | 4                                            |                       |                                        |                                                      | ſ          |
|--------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|----------------------------------------------|-----------------------|----------------------------------------|------------------------------------------------------|------------|
| 8737EN<br>846-8737EN                                                           | TEST/SEPOST MARKS<br>FAILED COMPOREST MARK                                                                                                                                                                                                                                 | BIF DATA BOUNCE<br>PART NUMBER                | VENICLE BITE FRI<br>DATE BIP TIME BIP OTH    | 817E<br>710E 01F      |                                        | VENDOR NADE                                          | I          |
| HYDRAIL IC-A/B                                                                 | 64-10-07E<br>H704AULIC PUMP                                                                                                                                                                                                                                                | FAR<br>27-0464-1                              | 3180 19<br>81 0 81 E                         | 5                     | 5 6                                    | VES VICKERS<br>NO AA-60454-R-EA                      | •          |
| FAILURE HOOE-BIRUCTURAL<br>OWER PEESSURIZATION.                                | FAILUME MODE-BIRUCIUMAL-PUMP MOUBING UMB CRACKED UNILE MIBBILE UMB DEMATED. PAILUME OF UNIT UMB PROGRADLY CAUSED BY<br>Wer peebburization.                                                                                                                                 | SILE WE DEMITED. PA                           | ורתוב פו                                     | **                    | MA A A A A A A A A A A A A A A A A A A | .T CAUSED BT                                         | ~ <u>~</u> |
| CORRECTIVE ACTION-RECOMMENDATION MAS IN OCEDUKES SET FORTH IN 7.0. SMS-E4-8-E. | CORECTIVE ACTION-RECOMMENDATION WAS MADE TO AIR FORCE PERSONNEL AT VAPS TO CARGFULLY POLLOW THE MISSILE STORME PR                                                                                                                                                          | SCENEL AT VAPE TO CA                          | ETULT P                                      | ALCOUTE               | M 186 I.A                              | L STORAGE PR                                         |            |
| HTDRAU_IC-A/B<br>BCOSTER                                                       | 96-10-071<br>BOOSTER HYDRAULIC TANK                                                                                                                                                                                                                                        | FAR<br>E7-06, 51-3                            | \$0\$018<br>\$10\$0\$                        | 25                    | YES BENGON                             | BENBOM<br>6863                                       | :          |
| FAILURE MODE-OUT OF TO, GAMENT WITH THE CYLINGER METER WIRE.                   | FAILUME MODE-OUT OF TOLERANCE-UNIT WAS MEJECTED BECAUSE THE CAP ON THE HYDRAULTS END WAS ABOUT 4 DECARES OUT OF ALL<br>Goment with the cyclinger, the cocked end cap was bue to .000 diameter locking wine uned instead of Regulare .081 dia<br>Meter wine,                | E CAP ON THE MYDRAUM.<br>E DIAMETER LOCKING W | 10 CO 10 10 10 10 10 10 10 10 10 10 10 10 10 | A ABOUT A             | DECALL<br>REQUI                        | IS OUT OF ALI                                        |            |
| CORRECTIVE ACTION-THE A                                                        | CORRECTIVE ACTION-THE APPROPRIATE PERSONNEL AT ALL FIELD AND PACTORY LOC. (TIGHS WERE HOTIFIED TO RETURN ALL DEFECTIV<br>RESERVOIRS FOR RENORK.                                                                                                                            | ND FACTORY LOC .TECHS                         | ACAE NOT                                     | 71 <b>8</b> 70        | E 1 (B)                                | ALL DEFECTIV                                         |            |
| HYDRAULIC-A/B                                                                  | 66-10-070<br>HTDRAULIC ACCUMAATORIO-RING                                                                                                                                                                                                                                   | FAR<br>E7-06334-3                             | \$10\$010<br>\$10\$ <b>00</b>                | ž                     | 5 0<br>5 0                             | VES PRACOCH EMS.<br>NO 81310-3                       | •          |
| FAILURE MODE-INTERNAL L                                                        | FAILUME MODE-INTERNAL LEAR. LEARAGE OF GAS ACROSS THE PISTON TO THE OIL SIDE.                                                                                                                                                                                              | ON 10 THE CAL BIDE.                           |                                              |                       |                                        |                                                      |            |
| H738AU. (C-A/B                                                                 | 94-04-236<br>ACTUATOR-BODGIER TAM.                                                                                                                                                                                                                                         | FAR<br>E7-06550-6                             | 4. C.    | 727                   | MO NTOR<br>VES ARCH<br>FARBLOAP        | MO MIDRAULIC RESK 00730E<br>TES ARCH<br>FARBIOGTUO-0 | :          |
| FAILURE MODE-FAILED DURING S CONED NOT BE MALLED. BOT THATCH WAS NOT CONFINED. | R-GA<br>1 COALD WOT FAILED DURING OPERATION-BURING THE FILL AND BLEED VALIDATION VIBRATION OCCURRED AND DELIDER ENGINE NO<br>1 COALD WOT BE WALLED. BOTH THE ACTUATOR AND ITA ABSOCIATED BEING APPLIFIES WERE FABLUME ANALYZED. FAILURE OF THE ACTUATOR WAS NOT COPETANCE. | LEED VALIGATION VIDA                          | A110- 000<br>1 PA1: JOH                      | MRES AND<br>AMALY 200 | 3 2 3                                  | IR EMBINE NO<br>JAE OF THE AC                        |            |
| CONNECTIVE ACTION-NOME.                                                        |                                                                                                                                                                                                                                                                            |                                               |                                              |                       |                                        |                                                      |            |

CONTAIN BIVIAICS

\*\*\*\*\*\*\*\*\*\*\*

|                                                                                    | DIFFICATION REVIEW-MYDRAWLIC SYSTEM-AIRBORNE                                                                                                                                                                                                                                                     | RAWLIC SYSTEM-AIRBON                                                                                                               | ¥                                                                        |                                                             |            |                                    |         |     |
|------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|-------------------------------------------------------------|------------|------------------------------------|---------|-----|
| BUB-BYBTEN                                                                         | TEST/REPORT HUMBER<br>FAILED COMPONENT NAME                                                                                                                                                                                                                                                      | DIF DATA SOURCE<br>PART MUNDER                                                                                                     | WENICLE<br>DATE BIP                                                      | 317E<br>71./E D1P                                           | 1 0<br>2 2 | SITE PRI VENDOR NAME               | A -     |     |
| <br>MTDRAU.IC-A/B<br>GOODIER                                                       | 64-04-221<br>ACTUATOR ASSEMBLY, 80087ER                                                                                                                                                                                                                                                          | FAR<br>27-08550-8                                                                                                                  | 19E<br>917414                                                            | =                                                           | 88         | MIDRAULIC RESE<br>ARCH<br>104706-9 | ¥       | ::  |
| <br>FAILURE MODE-ERRATIC OF                                                        | FAILUME MODE-ERRATIC OPCRATION-THE BOODTER EMBING ACTUATORD CHATTERED AND VIBRATED BURING PREFARATION PUR EMBINE AL<br>Gament operation.                                                                                                                                                         | & CMATTERED AND VIDE                                                                                                               | ATED BURIN                                                               | 6 PREFAR                                                    | <b>110</b> | 70 CHE                             | 4<br>¥  |     |
| <br>CORRECTIVE ACTION-SENGI                                                        | CORRECTIVE ACTION-GENERAL DYNAMICS CONVAIR WELL "DENTIFY ALL HIJAAULIE MESEARCH ACTUATORS FUR SPECIFIE USE, SEE REP<br>NT 64-04-221.                                                                                                                                                             | LL HIJAAUIC MEHEANG                                                                                                                | 1 ACTUATOR                                                               | 5                                                           | i di di    |                                    | ş       |     |
| <br>HTDRAULIC-A/B<br>BODSTER                                                       | 96-04-212<br>ACTUATOR MAUK-BERND                                                                                                                                                                                                                                                                 | FAR<br>E7-06550-5                                                                                                                  | 250<br>250<br>250<br>250<br>250<br>250<br>250<br>250<br>250<br>250       | 110.440                                                     | 50         | MO06<br>M7773                      |         | •   |
| <br>FAILURE MODE-CONTAMINA                                                         | FAILUME MODE-CONTANTING-CONTANTINGTION OF FILTER SCREEMS UPSTREAN OF DROPPING ORIFICES AND IN PORT NO. 1 ORIFICE.                                                                                                                                                                                | USTREAM OF DROPEN                                                                                                                  | . Calfices                                                               | A 100                                                       | 5          |                                    | 71CE.   |     |
| <br>CORRECTIVE ACTION-RECAN                                                        | CORRECTIVE ACTION-RECALLED ALL MOD6 27-00550-5 ACTUATORS FOR CLEANING AND RETROFIT WITH HEW FILTER AND ORIFICE UNIT                                                                                                                                                                              | OR CLEANING AND RETR                                                                                                               | # T T                                                                    |                                                             | <b>₹</b>   | D ONIFICE                          | 1797    |     |
| <br>HYDRAULIC-A/B<br>BOOSTER                                                       | M-10-045<br>HTDRAULIC ACCURLATOR LINE-PRECHA                                                                                                                                                                                                                                                     | 7AR<br>LINE-PNECHAR 27-03007-369                                                                                                   | 718811                                                                   | E                                                           | 28         | TES CONVAIR<br>NO                  |         |     |
| <br>FAILURE MODE-LEAR-EXTERNAL-ACCUMULATOR MES OF THE ALUMINUM TUBING LEADING PROM | FAILURE MODE-LEAR-EXTERNAL-ACCUMALATOR PRESSURE COAD NOT BE NAINTAINED DUE TO BNALL PIT MOLES IN THE FIRM.<br>MES OF THE ALUMINAM TUBING LEADING FROM THE CHARGE PAMEL. THE PIT MOLES NERE CAUSED BY A CORNOSION ATTACK.                                                                         | DE MAINTAINED DUE TO<br>ME PIT HOLES NENE CA                                                                                       | TO SMALL PIT MOLES IN THE PINST SIN INC<br>CAUMED BY A CORNOSION ATTACK. | HO.ES II                                                    | Ä          | FIRST SE                           | Ä       |     |
| <br>CORRECTIVE ACTION-NEASU                                                        | CORECTIVE ACTION-MEASUMES WEME TAKEN TO INDUME THAT THE DECHIDIZER SOLUTION WHED IN THE PROCESSING OF ALUMINUM TUB<br>WE BE NOTE CLOSELY CONTROLLED TO PREVENT CORROGION PITTING.                                                                                                                | CONTRIBER SOLUTION W                                                                                                               | 8<br>2<br>2<br>3                                                         | PROCESS                                                     | <b>\$</b>  | P ALUMINU                          | 5       |     |
| HYDRAULIC-A/B<br>BOOSTER                                                           | 64-04-188<br>ACTUATOR                                                                                                                                                                                                                                                                            | FAR<br>27-06550-5                                                                                                                  | \$150<br>\$10313                                                         | Ē                                                           | ទីខ្       | 7ES 1006<br>10 11773               |         | 202 |
| FAILURE MODE-CONTANINAT<br>B APPLIED. PRESSURE MAS<br>AS MACHINE BURRS.            | PAILUME MODE-CONTAHINATION. BURIUG A FILL AND PLEED TEST THE ACTUATOR RENAINED FULLY EXTENDED UNEN A MULL BIGNAL WA<br>8 MPPLIED. PRESSURE MAS AT 3000 FM. PAILUME WAS BUE TO ENTESS CONTAHINATION IN THE BROPPINS ORFICE. CONTAHINATION WAS MACHINE BURAES.                                     | TEST THE ACTUATOR REMAINED FULLY EXTENDED WHEN A MULL SIGNAL WA<br>TO EMFESS CONTAMINATION IN THE BROPPING ORFICE. CONTAMINATION W | FULLY EXT<br>THE BROPP                                                   | 2000<br>2000<br>2000<br>2000<br>2000<br>2000<br>2000<br>200 | # H        | MAL SIGN<br>COTANINAT              | 10      |     |
| COMBECTIVE ACTION-ALL P<br>FIED THE PABAICATION PRE<br>ETACTIVIED ACTIVATIONS MIL  | COMMECTIVE ACTION-ALL MODE 27-08550-8 ACTUATORS RECALLED AND RETROFITTED WITH MEW FILTER PLUS ASSEMBLIES. MODE MODE FILD THE FASHICATION PROCESS TO ELIMINATE THE REOCCUMBINE OF MACHINE BURR FORMATIONS IN THE DROPPING CRFICE. MODE A EFACTIVITED ACTIVIOUS MILL BE RE-IDENTIFIED ET-08550-18. | NO RETROFITTED WITH MEW PILTER PLUG ASSEMBLIES. NOOS HOD<br>OF MACHINE BURR FORMATIONS IN THE DROPPING CAPICE. MOOS                | NEW FILTER                                                               | P. US. As                                                   | <b>1</b>   | .168. MOS.<br>ORFICE. H            | 90 4 60 |     |

SENERAL BYNAMICS CONVAIR BIVISION

11 14 1100

| 10 th 1000                                                                         | DIFFICULTIES REVIEW-HYDRAULIC STRTEM-AIRBORNE                                                                                                                                                                                                                                                             | ULIC BYBTEN-AIRBOR!                                 | _                   |                 |          |                                                  |       |
|------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|---------------------|-----------------|----------|--------------------------------------------------|-------|
| 8191EH<br>846-8191EH                                                               | TESTARFORT MUMBER<br>PAILED COMPONENT MANE                                                                                                                                                                                                                                                                | DIF DATA SOUNCE<br>PART NUMBER                      | VEHICLE<br>DATE BIF | 11.E 01F        | 2 E E    | VENDOR NAME<br>VENDOR PART NO                    |       |
| MTERAULIC-A/B<br>BOOSTER                                                           | PD-G4-E11<br>ACTUATOR ABSEMBLY, FEEDBACK TRANSDU 27-06550-8<br>GER                                                                                                                                                                                                                                        | FAN<br>87-06890-8                                   | 1E<br>610810        | 5               |          | YES MYDRAULIC RESE<br>NO ARCH<br>104700-3        | :     |
| FAILURE MODE-FAIL DURING<br>OR EXTENDING TO FULL HARD<br>NACESTION AND POSSING, ME | FAILURE MOEFFAIL DURING OPERATION-APPLICATION OF 3000 PSIG HYDRAULIC PRESSUNG RESULFOLLE. IT PITCH BOOSTER ACTUA ON EXTENDING TO FULL HARD-OVER DEFLECTION, PEED BACK TRANSOUCER WAS OPEN A TO B AND A TO C, B TO C SMOTED. BUNNED NASULATION AND FOITING, MELTED AND BROKEN COLL MINDING, CAUSE UNKNOWN. | HERNALIC PRESSUA.<br>ER MAS OPEN A TO B<br>UNENDUR. | RESULTE:            | 90              | 5 3      | T PITCH BOOSTER ACTUAT<br>TO C SHORTED. BUNKED I |       |
| COARCCTIVE ACTION-HOME AS<br>R DEFICIENCY. PROBABLE BE                             | COARECTIVE ACTION-MOME AS CAUSE COULD NOT BE DETERMINED. PAILURE MISTORY OF THIS ITEM BOES NOT INDICATE A TRANSDUCE<br>R DEFICIENCY. PROBABLE SECONDARY FAILURE, CAUSE UNKNOWN.                                                                                                                           | LURE HISTORY OF TH                                  | 45 TO 80            | 101 101         | 210      | E A TRANSDUCE                                    |       |
| HTDRAULIC-A/B<br>BOOSTER                                                           | 64-04-138<br>ACTUATOR                                                                                                                                                                                                                                                                                     | FAR<br>R7-06850-7                                   | 900019<br>910109    | Ē               | 50       | TES ATDRAULIC RESE<br>NO ARCH<br>104700-1        | 1324  |
| FAILURE NOE-OUT OF TOLE<br>CTUATOR MAD A MIGH GAIN D                               | FAILUME MODE-OUT OF TOLERANCE-DURING BOOSTER DIGING SINGALING THE ACTUATORS MENE EIMIGITING A MIGH AUDIGLE NOISE. A<br>CTUATOR MAD A MICH GAIM DAG TO IMPROMERLY ADAUGIED IMMANETS IN THE BERNO VALVE NOTOR.                                                                                              | IS THE ACTUATORS HE!<br>I THE BERVO VALVE H         | IE CMIBIT           | # 4 <b>9</b>    | 9<br>1   | IME NOIME. A                                     |       |
| CORRECTIVE ACTION-VCAR TO NITIAL CHECKOUT PROCEDURE                                | CORRECTIVE ACTION-VOAR TO HYDRAILIC RESEARCH TO PROVIDE INCREASED SURVEILLANCE OF ALL TEST BATA. SO/C MILL CHANGE<br>Hitial checkoup procedure to isolate high sain adjustments at the actuator assendly anea.                                                                                            | EASED SURVETLLANCE<br>THE ACTUATOR ASSE             | OF ALL W            | . DATA.         | ÿ        | HIL CAME 1                                       | -     |
| HTDRAULIC-A/B<br>BOOSTER                                                           | 88-04-182<br>ACTUATOR                                                                                                                                                                                                                                                                                     | FAR<br>27-06350-3                                   | 61 0625             | 1               | 20       | TES MYDRAULIC MESE<br>NO ARCH<br>194700-8        | *     |
| FAILURE HODE-CRRATIC OPEI<br>E COALD HOT NE CONTINNED                              | FAILUME MODE-ERRATIC OPERATUR-DURING AUTOPILON CALIBRATION THE ACTUATOR WER CONEINED VIGRATING AND MUNTING. PAILUM<br>E coald not re confirmed in 8.10 diego. Cause believed to be other than the actuator.                                                                                               | THE ACTUATOR WAS OF                                 | 1704.               | <b>8</b> 4.7118 | <b>3</b> | WING. PAILUR                                     |       |
| CONECTIVE ACTION-NOME.                                                             |                                                                                                                                                                                                                                                                                                           |                                                     |                     |                 |          |                                                  |       |
| HTDRAULIC-A/B<br>BOOSTER                                                           | 90-10-046<br>Booster Hydraulic Artendia                                                                                                                                                                                                                                                                   | FAR<br>E7-06551-3                                   | 919019              | C.              | 20       | YES BENBON<br>NO 8888                            | 21000 |
| FAILUME MODE-INTERNAL LE                                                           | ERMAL LEAR-LEAKAGE OF PRE-CHARGE SAS ACROSS THE PISTON TO THE OIL SIBE.                                                                                                                                                                                                                                   | THE P1870M TO THE                                   | 31. SIDE.           |                 |          |                                                  |       |
| CORRECTIVE ACTION-FAILURE                                                          | CORRECTIVE ACTION-FAILURE NOT CONFINNED. CONVAIR IS CONSIDERING A DETTER METHOD OF CHECKOUT ON THE HYDRANLIC ACCUMU<br>Lator to detect 648 learabe past the Piston After Assembly.                                                                                                                        | 1186 A BETTER METHO                                 | 0 CACC              | 10 TO TO        | a n      | RAULIC ACCUMU                                    |       |

7,

SCHERAL DYMANICS

18 JUN 1866

A Street ?

| CONVAIR DIVISION |
|------------------|
| CONVAIR          |
|                  |

|                                               | 9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 997201                   |                                                                                                                                                                                                                                                                                                                                                                                                    | 28 A S                          |                                                                                                                                                                                                                                   | VES HYDRAULIC RESE 607155<br>ND ARCH<br>104730-1 |                                                                                                                                                                                                                                                         |                                                                                                              | 1686 007184                               | •                                                                                                                   |
|-----------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|-------------------------------------------|---------------------------------------------------------------------------------------------------------------------|
|                                               | VEHICLE SITE PRI VENDOR MANE<br>DATE DIF TIME DIF OTH VENDOR PART NO                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | YES HOOF<br>HO H7773     | UE TO THE PA<br>ME SPOOL AND<br>OCCUMBENCE O                                                                                                                                                                                                                                                                                                                                                       | VES VICKERS<br>NO AA-60684-R-EA | 9<br>8<br>8                                                                                                                                                                                                                       | NYDRAULIC R<br>ARCH<br>104700-1                  | ICALLY WHEN<br>ATION OF HET                                                                                                                                                                                                                             | PONENTS.                                                                                                     | TES HYDRAULIC RESE<br>NO ARCH<br>104700-3 | SE. FAILURE                                                                                                         |
|                                               | SITE PRI                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                          | HETHERN TO<br>BETHEEN T                                                                                                                                                                                                                                                                                                                                                                            | -                               | To ON! 44                                                                                                                                                                                                                         |                                                  | CONTANIN                                                                                                                                                                                                                                                | MEIR CON                                                                                                     |                                           | AL RESPON                                                                                                           |
|                                               | VEHICLE SI                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 913                      | 104. PAIC<br>1186 PIN 1                                                                                                                                                                                                                                                                                                                                                                            | 107 FORES                       | ynd • • • • • • • • • • • • • • • • • • •                                                                                                                                                                                         | E18                                              | OR RESPOYED BY                                                                                                                                                                                                                                          | INCSS OF 1                                                                                                   | 7                                         | DPERATION                                                                                                           |
| A I RBORNE                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 913019                   | ATIC BENAVI<br>GMED CENTER<br>O TAME ACTI                                                                                                                                                                                                                                                                                                                                                          | 410807                          | JE. FALUM<br>COOLY.                                                                                                                                                                                                               | 790<br>402907                                    | THE ACTUATO                                                                                                                                                                                                                                             | THE CLEANE.                                                                                                  | 602507                                    | D ERRATIC C                                                                                                         |
| WIC BYSTER                                    | DIF DATA BOUNCE<br>PART NUMBER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | FAR<br>27-06550-5        | MIBITED ENG<br>AND A MIBALI<br>AN TO MOOR 1                                                                                                                                                                                                                                                                                                                                                        | FAR<br>27-06966-1               | ON COMER PLA                                                                                                                                                                                                                      | FAR<br>27-06550-7                                | PONSE TEST                                                                                                                                                                                                                                              | TO INPROVE                                                                                                   | FAR<br>87-06550-3                         | TOR EMISITE                                                                                                         |
| DIFFICULTIES REVIEW-WIDRAULIC STRIEM-AIRBORNE | TESTAGNOST MUNGER<br>FALLED COMPONENT MANG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 9D-04-193<br>ACTUATOR    | FAILURE MODE-OUT OF TOLERANCE-DURING CHECKOUT THE ACTUATOR EMIBITED ERRATIC BEHAVIOR. FAILURE WAS DUE TO THE PRESE ME OF AN EXTRA CENTERING PIN IN THE PORT NO. 1 SPOOL SPRING AND A MISALIGHED CENTERING PIN BETWEEN THE SPOOL AND PO RT NO. 2 SPOOL SPRING. COARECTIVE ACTION-60/C INSPECTION ALERTED TO THE FAILURE. PCAR TO MODE TO TAKE ACTION TO PREVENT RE-OCCUMBENCE OF SIMILIAR FAILURES. | A-84-10-049F<br>HYDRAULIC PURP  | FAILURE MODE-EXTERNAL LEAK-LEAKAGE VOIL) AT THE CONTROL PISTON COMER PLATE. FAILURE WAS DUE TO CHISSICH OF AN O RIN<br>6 SPACER P/H 170364 UNDER THE CONTROL PISTON COMER PLATE DURING FIELD ASSEMBLY.<br>CORRECTIVE ACTION-MONE. | 98-04-147<br>ACTUATOR ORIFICE                    | FAILURE MODE-CONTAMINATION, DURING AM AUTOFILOT PREGUENCY RESPONSE TEST THE ACTUATOR RESPONDED ERRATICALLY MEN A 3<br>o cps infut was applied. Failure was due to a servo valve crifice being partially blocked by contamination of metal<br>particles. | CORRECTIVE ACTION- WAR TO HYDRAULIC RESEARCH REGIESTING THEN TO INPROVE THE CLEANLINESS OF THEIR CONFORENTS. | 96-04-147<br>ACTUATOR CRIFICE             | FAILURE MODE-CONTAMINATION: DURING SYSTEM CHECKOUT THE ACTUATOR EIMISITED ERRATIC OPERATIONAL RESPONSE. FAILURE MAS |
| 10 104 1066                                   | 8-78-76 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS - 8-05 BUS | HTDRAULIC-A/B<br>BOOSTER | FAILURE MODE-OUT OF TOLER<br>ME OF AN EXTRA CENTERING<br>RT MO. E SPOOL SPRING.<br>CORRECTIVE ACTION-60/C IN                                                                                                                                                                                                                                                                                       | HTDRAULIC-A/B<br>BOOSTER        | FAILURE MODE-EXTERNAL LEAS PACER PUR 170364 LADER CORRECTIVE ACTION-NOME.                                                                                                                                                         | HTEAULIC-A/B                                     | FAILURE MOBE-CONTANIMATIO<br>O CPS INFUT WAS APPLIED. F<br>PARTICLES.                                                                                                                                                                                   | CORRECTIVE ACTION- VCAR TO                                                                                   | MTDRAULIC-A/B<br>BOOSTER                  | FAILURE MODE-CONTAMINATIC                                                                                           |

CORRECTIVE ACTION-VCAR TO MYDRAULIC RESEARCH TO TAKE ACTION TO IMPROVE CLEANLINESS.

SENERAL BYNAMICS CONTAIN BIVISION

| 1                                                                                       | CONAVIR DIAIRIO                                                                                                                                                                                                                                                          |                                             |                         |                                  |                     |                                       |      |
|-----------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|-------------------------|----------------------------------|---------------------|---------------------------------------|------|
|                                                                                         | DIFFICULTIES REVIEW-HYDRAULIC STRIEM-AIRBORME                                                                                                                                                                                                                            | RAULIC STSTEM-AIRBO                         | Ä                       |                                  |                     |                                       | ſ    |
| 8187EM<br>808-8787EM                                                                    | TESTARFORT NUMBER<br>FAILED COMPONENT NAME                                                                                                                                                                                                                               | DIF DATA BOUNCE<br>PART NUMBER              | VEHICLE<br>DATE DIF     | VEHICLE SITE<br>DATE DIF THE DIF |                     | PRE VENDOR MANE<br>OTH VENDOR PART NO | •    |
| HTDEAULIC-A/B<br>BOGATER                                                                | 98-04-100<br>ACTUATOR ASSEMBLY                                                                                                                                                                                                                                           | FAR<br>27-08380-8                           | 320<br>602406           | £                                | 7£8 HOO6<br>HO H777 | HOO6<br>H7773                         | •    |
| FAILURE MODE-BIGUCTURAL. A<br>OF THE ACTUATOR MERE BEIZED<br>ALL OPERATING REQUIRMENTS. | PAILURE MODE-BIGUCTURAL, ACTUATOR REJECTED BECAUSE VIBUAL EXANIMATION INDICATED BELF ALIGNING BEARINGS AT EACH END<br>Of the actuator were belied. The back end bearing race was goused and the mounting plande was battered, actuator met<br>All operating requirments. | EXANIMATION INDICATI<br>COUCED AND THE NOUN | 10 BELF AL              | Ten and a                        | 7                   | . ACTUATOR M                          |      |
| CORRECTIVE ACTION-                                                                      | CORRECTIVE ACTION-COMPONENT PROBABLY DANAGED DURING INSTALLATION. COMIZANT PERSONNEL INFORMED OF THE DISCREPANCY.                                                                                                                                                        | LATION. COCNIZANT PI                        | CABONEL 1               | WORKS O                          | Ā                   | DISCREPANCY                           |      |
| HTDRAULIC-A/B<br>BODSTER                                                                | 8604075<br>ACTUATOR                                                                                                                                                                                                                                                      | FAR<br>27-06550-3                           | EE 602106               | PACTORY                          | 33                  | HYDRAULIC REEL<br>ARCH<br>104703-8    | 1900 |
| FAILURE MODE-OUT OF                                                                     | FAILURE MODE-OUT OF TOLERANCE-FEED BACK MALL OUT OF TOLERANCE. COULD NOT BE CONFINEDA.                                                                                                                                                                                   | INCE. COLLD NOT BE C.                       | 36 184B.                |                                  |                     |                                       |      |
| HTDRAULIC-A/B<br>BODSTER                                                                | 90-10-041<br>HYDRAULIC ACCUMULATOR                                                                                                                                                                                                                                       | FAR<br>27-08554-3                           | 20 S                    | Ę                                | 2 8                 | VES PEACOCK ENG.<br>NO 51310-3        | •    |
| FAILURE MODE-INTER                                                                      | ERMAL LEAK. GAS PRECHARGE LEAKING ACAGOS THE PISTON.                                                                                                                                                                                                                     | INE PISTON.                                 |                         |                                  |                     |                                       |      |
| CORRECTIVE ACTION-I                                                                     | CORRECTIVE ACTION-FAILURE NOT CONFIRMED, PROBANL CAUSE OF FAILURE WAS G RIMS. O RIMS BECOMES POROUS WHEN SUBJECTED TO HIGH TENTER EMALHATION TEST, SEE CLAST ZENORT                                                                                                      | PAILURE HAS G RING                          | . O RIM .               | ECOMES PO                        | au a                | MEN BUBLECT                           | 9    |
| HYDRAULIC-A/B                                                                           | 98-04-13E<br>ACTUATOR O-RIMS                                                                                                                                                                                                                                             | FAR<br>27-04550-5                           | 900<br>601888           |                                  | ÷ 5                 | TES HOOF<br>HO H773                   | •••• |
| FAILURE MODE-LEAK.                                                                      | A, EXTERNAL, UNIT REMOYED DUE TO A LEAK AT THE HID CYLINDER CABTING JOHNT, PAILUNG NAS DUE TO A PIN<br>. Cut that peahltted learage under 3000 ps! hydraulic system pressure.                                                                                            | THE HID CYLINDER C<br>HYDRAULIC BYBTEN P    | 1571116 JOS<br>1518URE. | MT. PAILU                        | <b>1</b>            | • DUE TO 4 P                          |      |
| CORRECTIVE ACTION-                                                                      | COARECTIVE ACTION-60/C INITIATED A REVISED ACCEPTANCE PROCEDURE INCORPORATING DYNAMIC TESTING OF THE INTEGNATED ASS<br>MBLT CONSISTING OF ACTUATOR, SERVO VALVE AND PEEDBACK TRANSDUCEA.                                                                                 | PROCEDURE INCORPORATING<br>TRANSOUCER.      | DYMANIC                 | Catin o                          | Ĭ                   | INTERATED A                           | •    |
| -                                                                                       |                                                                                                                                                                                                                                                                          |                                             |                         |                                  |                     |                                       | _    |

SENERAL BYNAMICS

CONVID

11 104 1066

| _          |  |
|------------|--|
| 01 VI 81 Q |  |
| CHAVIA     |  |
| J          |  |

| 7001 701 41                                                         | DIFFICULTIES REVIEW-HYDRAULIC SYSTEM-AIRBORNE                                                                                                                                                                                                                  | AULIC SYSTEM-AIRBOR                       | ¥                         |                  |                     |                                                                    |       |
|---------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|---------------------------|------------------|---------------------|--------------------------------------------------------------------|-------|
| STSTEM<br>SUB-STSTEM                                                | TESTARPOAT HUMBER<br>FAILED COMPONENT NAME                                                                                                                                                                                                                     | DIF DATA SOURCE<br>PART NUMBER            | VEHICLE<br>DATE DIF       | 317E<br>73ME DIF | - X                 | WHICLE SITE PRI VENDOR NAME<br>DATE BIF THE BIF OTH VENDOR PART FO |       |
| MTDRAUL IC-A/8<br>BOOSTER                                           | 68-04-142<br>ACTUATOR: BOOSTER                                                                                                                                                                                                                                 | FAR<br>27-06350-7                         | 91810                     | 45               | 20                  | TES NYDRAULIC RESE<br>NO ARCH<br>104700-1                          | :     |
| FAILURE MODE-CONTANINAT<br>TESTS AT 10 CPS, FAILUR<br>LTER SLEEVE.  | FAILURE MODE-CONTAHINATION. DURING ARCHE DECR 56 CHECROUT A NO-60 INDICATION MAS RECEIVED DURING PRESUENCY RESPONSE<br>Tests at 10 cps. Pailure was due to plub material contamination in the Capice and Datil Buras in the Mole of The Pier sleeve.           | HO-60 INDICATION N                        | NA PECETY<br>AND DRILL    | BURRS IN         | TAE<br>THE E        | ENCY RESPONSE<br>DLE OF THE FI                                     |       |
| CORRECTIVE ACTION-(1) V                                             | CORRECTIVE ACTION-(1) WORR TO HYDRAILIC RESEARCH TO ESTABLISH PROCEDURES TO ELIMINATE SIMILIAR CONTAMINATION (2) 60<br>/c revised inspection procedure to detect similiar smifts im dynamic mulls im puture actuators.                                         | SH PROCEDURES TO EL                       | IMINATE SUTURE ACT        | INILIAR C        | DNTAME              | 04 (8) 60                                                          | ·     |
| HYDRAULIC-A/B<br>BOOSTER                                            | 98-04-160<br>Valve Bervo                                                                                                                                                                                                                                       | FAR<br>27-08350-5                         | 312100<br>840             | OFF UTT          | 7€8 4004<br>10 H-77 | #006<br>#-7773                                                     | 97140 |
| FAILURE MOE-OUT OF TOL<br>E SPECIFICATION LINITS.<br>N OF NEW PART. | FAILURE HODE-OUT OF TOLERANCE. DURING BYBTEM TESTS THE UNIT WAS MENOWED BECAUGE THE FINEMENCY RESPONSE MAS BELOW TH<br>E SPECIFICATION LIMITS. BELIEVED DUE TO AM IMPROPER INSTALLATION THAT WAS INMOVERTENTLY CORRECTED DURING INSTALLATION<br>M OF NEW PART. | MAS REMOYED BECAUG<br>TION THAT WAS IMADY | E THE FINE<br>CRITCUILY O | MENCY RES        | POSSE<br>DURING     | MES BELON TH<br>B INSTALLATIO                                      |       |
| CORRECTIVE ACTION-WOME.                                             | CORRECTIVE ACTION-NOME. FALLURE NOT CONTINUED.                                                                                                                                                                                                                 |                                           |                           |                  |                     |                                                                    |       |
| HYDRAULIC-A/B<br>BOOSTER                                            | 99-10-360<br>ACTUATOR                                                                                                                                                                                                                                          | FAR<br>87-06550-7                         | 800<br>801810             | £                | 20                  | MES HYDR: ULIC MESE<br>ND ARCH<br>104700-1                         | 3     |
| FAILURE MODE-CONTANINAT                                             | FAILURE MODE-CONTAHINATION-SUSPECTED OF CONTAINING ENCESSIVE CONTAHINATION.                                                                                                                                                                                    | E CONTAMINATION.                          |                           |                  | i                   |                                                                    |       |
| CORRECTIVE ACTION-MORE                                              | CORRECTIVE ACTION-MORE RIGID REASURES TO PREVENT CONTANINATION MAVE BEEN TAKEN.                                                                                                                                                                                | ION MANE BEEN TAKEN                       | •                         |                  |                     |                                                                    |       |
| 47084 <b>4.</b> 16- <b>4/8</b><br>booster                           | 98-10-960<br>80081ER PRESSURE RISE OFF DISCORSE 27-08558-8<br>CI                                                                                                                                                                                               | F1:                                       | 606<br>601810             | E                | 20                  | TES PEACOCK<br>NO 81300-3                                          | ****  |
| PAILURE MODE-CONTAINAT                                              | FAILUNE MODE-CONTRAINATION-BUBPECILD OF CONTAINING ENCESSINE CONTANINATION.                                                                                                                                                                                    | E CONTANINATION.                          |                           |                  |                     |                                                                    |       |
| CORRECTIVE ACTION-HORE                                              | CORRECTIVE ACTION-WORE RIGID HEABURED TO PREVENT CONTANIMATION MAVE BEEN TAKEN.                                                                                                                                                                                | ION MAVE BEEN TAKEN                       | •                         |                  |                     |                                                                    |       |
|                                                                     |                                                                                                                                                                                                                                                                |                                           |                           |                  |                     |                                                                    |       |

CONVAIR DIVISION

|   | 477 41                                       | DIFFICULTIES REVIEW-M                                                                                                                                                                                                                       | DIPFICULTIES REVIEW-HYDRAULIC STALLA-AIRBORNE    | ¥                      |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                               | ,           |
|---|----------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|------------------------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|-------------|
|   | 3131EH<br>646-8131EH                         | TEST/REPORT NUMBER<br>PAILED COMPONENT NAME                                                                                                                                                                                                 | DIF DATA BOUNCE<br>PART NUMBER                   | VEHICLE<br>DATE BIF    | 817E<br>710E 01F | 1 TO 11  VENDOR NAME<br>VENDOR PART NO |             |
|   | MTD4AULIC-A/8<br>80031ER                     | 98-10-040<br>BOSSIER RESERVOIR                                                                                                                                                                                                              | FAN<br>87-0851-8                                 | 906                    | 678              | 10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 7Es BEMBON<br>NO 8885         | :           |
|   | FAILURE MOE-CONTANIMAT                       | FAILURE HODE-CONTANINATION-LUSPECTED OF CONTAINING ENCESSIVE CONTANINATION.                                                                                                                                                                 | BIVE CONTANINATION.                              |                        |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                               |             |
|   | CORRECTIVE ACTION-MORE                       | ION-HORE RIGID HEASURE TO PREVENT CONTABINATION MANE BEEN TAKEN.                                                                                                                                                                            | ATION HAVE BEEN TAKEN.                           |                        |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                               |             |
|   | HTDRAULIC-A/B<br>BOOSTER                     | AC-60-0030/31-511-AT-08<br>81 HTG. RESERVOIR PLEN MOSE                                                                                                                                                                                      | CAPTIVE<br>87-06600-81                           | #                      | 3                | ទី ទ                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                               | :           |
|   | FAILURE MODE-LEAK-ERTER                      | CAR-ENTERMAL- MINOR LEAK WAS DISCOMENED DURINS POST TEST SECURINS.                                                                                                                                                                          | RING POST TEST BECURIN                           | ė                      |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                               |             |
|   | STATEN EFFECT-NONE.                          |                                                                                                                                                                                                                                             |                                                  |                        |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                               |             |
|   | VEHICLE EFFECT-NONE.                         |                                                                                                                                                                                                                                             |                                                  |                        |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                               |             |
|   | HTDRAULIC-A/B<br>BOOSTER                     | E14-031/14-531-E5-9E                                                                                                                                                                                                                        | CAPTIVE                                          | 601169                 | 7.               | ភូទ                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                               | •••         |
|   | FAILURE MODE-CONTAMINAT                      | FAILURE HODE-CONTANINATION. THE BOOSTER HIDRALLIC BYSTEN HAD AN EXCESSIVE ANOUNT OF ENTRAPPED GAB.                                                                                                                                          | HAD AN EXCESSIVE AND                             | AT OF ENT              | 5 03471          | ÷                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                               |             |
|   | SYSTEM EFFECT-ERRATIC O                      | STSTEN EFFECT-ERRATIC OPERATION. BI HTDRAULIC ACCUMILATOR PRESSURE INS EARATIC.                                                                                                                                                             | A PRESSURE WAS EARATIC                           | .:                     |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                               |             |
|   | WEHICLE EFFECT-NOME.                         |                                                                                                                                                                                                                                             |                                                  |                        |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                               |             |
|   | CORRECTIVE ACTION-HYDRA                      | CH-HTDRAULIC SYSTEM MAS BLED.                                                                                                                                                                                                               |                                                  |                        |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                               | <del></del> |
|   | HTDRALLIC-A/B<br>BOOSTER                     | 00-10-037<br>RELIEF VALVE                                                                                                                                                                                                                   | FAR<br>E7-06561-1                                | 970<br>401110          |                  | 23                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | TES VINSON<br>NO A-GORRE      | :           |
|   | FAILURE MODE-INTERNAL L<br>AULIC FLUID TAMK. | FAILUME HODE-INTERNAL LEAK. LEAKAGE PERHITTED LOM PRESSURE BYBTEM TO OVERPRESSURIZE CAUBING FAILURE OF BOOBTER HYDR<br>ULIC FLUID TAMK.                                                                                                     | AE BYSTEN TO OVERPREST                           | JAISE CAU              | SIM FAIL         | 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | PODETER HTDR                  |             |
|   | CORRECTIVE ACTION-VENDE                      | ION-VENDER MAD INSTRUCTED TO IMPROVE HIS BUALITY CONTROL.                                                                                                                                                                                   | WALITY CONTROL.                                  |                        |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                               |             |
|   | HTDRAULIC-A/B<br>BOOSTER                     | AE60-0749/L1-40 <b>2</b> -00-57<br>Taaneducer                                                                                                                                                                                               | FLIGHT                                           | \$70<br>\$01011        | PAL 8-1<br>107   | ð Ş                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                               |             |
| 1 | FAILURE MODE-OUT OF APE                      | FAILUNE MOGE-OUT OF APECIFICATION OR TOLERANCE-BI MYD ACCUMULATOR PRESSURE DECREASED PROM 3060 PRIG TO SIG PSIG BET<br>Men igt amd 192 seca (lettischi), mot reflected in any striem loss of hydraulic control. Erromeous bensine of Booste | CUMULATOR PRESSURE DEC<br>STEN LOGS OF HYDRAULIE | GEASED FR.<br>CONTROL. | ENDREON          | 2 9 6 7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 0 810 P816 8ET                |             |

GENERAL BYNAMICS CONVAIR DIVISION

11 JUN 1066

| BYSTEN<br>BUB-EYSTEN                                                                                                            | TESTARFORT NUMBER<br>FALLED COMPONENT NAME                                                                                                                                                                                                                                         | DIF DATA SOURCE<br>PART NUMBER             | VEHICLE<br>DATE DIF | 11 ME 017 | WHICLE BITE PRI VENDOR NAME<br>DATE BIF TIME BIF OTH VENDOR PART NO | VENDOR HANG<br>RIDOR PART NO | <b></b>     |
|---------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|---------------------|-----------|---------------------------------------------------------------------|------------------------------|-------------|
| R MTDRAULIC PRESSURE DUE                                                                                                        | TO A FROZEM SENSING LINE.                                                                                                                                                                                                                                                          |                                            |                     |           |                                                                     |                              |             |
| STSTEN EFFECT-OPERATION                                                                                                         | PERATION TOO LOM-DATA INDICATED LOW STRIEM PRESSURE. NO OTHER EFFECTS CRRENUED.                                                                                                                                                                                                    | RESSURE. NO OTHER I                        | :FFECT& 084         | ER VED.   |                                                                     |                              | <del></del> |
| CORRECTIVE ACTION-EXTENS PRESSURE DECREASE. THE P                                                                               | CORRECTIVE ACTION-EXTENSIVE LABORATORY TESTING IN AN ATTEMP TO SINULATE FLIUNT CONDITIONS TO BETERNINE THE CAUSE OF<br>PRESSURE DECREASE. THE PROBABLE CAUSES ARE AS LISTED IN THE FAILURE MODE.                                                                                   | TO SIMULATE FLIGHT<br>FAILURE NOOF.        | COMD111CM           | # 10 DE I | EANINE THE                                                          | CAUSE OF                     |             |
| HDRAULIC-A/B<br>BOOSTER                                                                                                         | 98-04-157<br>ACTUATOR SLEEVE                                                                                                                                                                                                                                                       | FAR<br>27-06550-7                          | 795<br>600915       | <b>2</b>  | YES HYDRAULIC RESE<br>NO ARCH<br>104700-1                           | KIC NESE                     | ******      |
| FAILURE MODE-STRUCTURAL, DURING STSTEN<br>CRACK IN THE BRAZE BETWEEN THE FLEXURE S<br>NOWENT OF THE FLEXURE SLEEVE AND HOUSING, | FAILUME MODE-STRUCTURAL. DURING SYSTEM TESTING THE UNIT OPERATED ERRATICALLY AND MAS REMOVED. FAILUME HAS DUE TO A<br>Crack in the braze between the Flexume bleve and the plexume bleve mousing. This medulted in a nechabical his-alig<br>ment of the flexume bleve and housing. | RATED ERRATICALLY /<br>E BLEEVE MOUSING. 1 | IND MAS REALTHE     | OVED. FA  | ILURE MAS D<br>MECHANICAL                                           | NE TO A                      |             |
| CORRECTIVE ACTION-WEAR TO<br>OCCUR.                                                                                             | CORRECTIVE ACTION-VCAR TO HYDRAULIC RESEARCH TO INTENSIFY EFFORT TO ENSURE THAT NO ADDITIONAL FAILURES OF THIS TYPE<br>OCCUR.                                                                                                                                                      | FFORT TO ENSURE THE                        | T NO ABB1           | TOME FA   | ILUNES OF 1                                                         | HIS 17PE                     |             |
| HYDRAULIC-A/B<br>BOOSTER                                                                                                        | AAGG-GOSSP4-4G1-QOPB<br>ACTUATOR ASSEMBLY, SERVO VALVE                                                                                                                                                                                                                             | COUNTDOM                                   | 780                 | 27        | 27.00                                                               |                              |             |
| FAILURE MODE-OUT OF TOLES<br>POSITION IN PITCH DUE TO (<br>SHUIDOMM.                                                            | FAILURE MODE-OUT OF TOLERANCE. DURING THE ATTEMPTED LAUNCH COUNTDOMN, THE SE ENGINE DID NOT MAINTAIN A PROPER MALL POSITION IN PITCH DUE TO ORGANIC CONTANINATION IN THE BERVO VALVE. THIS IMPROPER MALL WAS EMPERIENCED AFTER DUSINESS SHUTDOMN.                                  | COUNTDOMN, THE SE E<br>VALUE. THIS IMPROPE | HALL MA             | HOT MAIN  | TAIN A PROF<br>NCED AFTER                                           | CA MALL<br>CHAINES           |             |
| SYSTEM EFFECT-IMPROPER AL                                                                                                       | SYSTEM EFFECT-IMPROPER ANALOG BIGNALS. BOOSTER ENGINE FAILED TO MAINTAIN PROPER MALL.                                                                                                                                                                                              | D TO MAINTAIN PROPE                        | A MULL.             |           |                                                                     |                              |             |
| WENICLE EFFECT-NONE. COU                                                                                                        | VEHICLE EFFECT-NOME. COUNTDOM WAS ABORTED FOR OTHER REASONS.                                                                                                                                                                                                                       | ė                                          |                     |           |                                                                     |                              |             |
| CORRECTIVE ACTION-THE BE                                                                                                        | ACTUATOR WAS REPLACED.                                                                                                                                                                                                                                                             |                                            |                     |           |                                                                     | =-                           | <del></del> |
| M7D4AULIC-A/B<br>BOOSTER                                                                                                        | 98-04-158<br>ACTUATOR ASSEMBLY                                                                                                                                                                                                                                                     | FAR<br>27-06550-5                          | 740<br>600428       | 5         | YES HOOF<br>NO HT778                                                |                              | *****       |
| FAILURE MODE-BIRUCTURAL. DURIN<br>RE MAD DUE TO A BLIGHTLY MORN B<br>MHEN THE UNIT MAD DIBABBENBLED.                            | NUCTURAL. OURING BYSTEM TESTS THE UNITS PRESUENCY RESPONSE WAS SELOW THE<br>HIGHTLY MORN SPOOL SELIEVED CAUSED BY SOME SORT OF CONTABINANT, HOMEVER<br>) DISASSEMBLES.                                                                                                             | UENCY RESPONSE MAS<br>SORT OF CONTABLIAMS  |                     | PPC171C   | SPECIFICATION LIMITS. PAILU<br>NO CONTANINANT MAS PERSENT           | 8. PAILU<br>Pqesent          |             |
|                                                                                                                                 |                                                                                                                                                                                                                                                                                    |                                            |                     |           |                                                                     |                              |             |

CORRECTIVE ACTION-60/C INTERSIFIED CONTANINATION PREVENTIVE MEABURES.

SENERAL BYNAMICS CONVAIR BIVISION

9941 NOT 11

|                                             |                                                                                                                                                                                                                           |                                                   |                     |                                    |               |                                                                      | _     |
|---------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|---------------------|------------------------------------|---------------|----------------------------------------------------------------------|-------|
| 818-818 8 8 8 1 8 1 8 1 8 1 8 1 8 1 8 1     | TEST/REPORT NUMBER<br>FAILED COMPONENT NAME                                                                                                                                                                               | BIF DATA BOUNCE<br>PART NUMBER                    | VEHICLE<br>DATE DIF | 817E<br>71ME 01F                   | - X           | VEHICLE BITE PRI VENDOR PART NO DATE BIF TIME BIF OTH VENDOR PART NO |       |
| YDRAULIC-A/B                                | 98-04-110<br>ACTUATOR ABSEMBLY, BOODER BERVO V E7-06550-5<br>ALVE                                                                                                                                                         | FAR<br>50 V E7-06860-3                            | 3E<br>669617        | CTR                                | 88            | MTD-RESEARCH<br>104700-3                                             | :     |
| FAILURE MODE-OUT OF<br>FAILURE, PROBABLY CA | FAILURE MOE-OUT OF SPECIFICATION OR TOLERANCE-MIGH WALL VOLTAGE AND INSTABILITY. FAILURE AMALYSIS DID NOT CONFIRM<br>Failure. Progably caused by contanination.                                                           | . VOLTAGE AND INSTABIL!                           | ITY. PAILW          | ME AMALTO                          | 10 <b>•</b> 1 | D NOT CONFIRM                                                        |       |
| COKRECTIVE ACTION-NOME                      | ₽ici                                                                                                                                                                                                                      |                                                   |                     |                                    |               |                                                                      |       |
| HYDRALL IC-A/B<br>BOOSTER                   | 90-04-108<br>ALTUATOR ABSENGLY                                                                                                                                                                                            | FAR<br>27-08550-5                                 | \$7-6<br>\$0081\$   | 45                                 | 99            | M006<br>M7773                                                        | ****  |
| FAILURE MODE-OUT OF                         | FAILURE MUDE-OUT OF SPECIFICATION OR TOLERANCE-MISM WALL CHARACTERISTICS NOT CONFIRMED SY TESTIMS.                                                                                                                        | . CHARACTERIBTICS NOT                             | GD#1 #00            | V 16871N                           | ÷             |                                                                      |       |
| CORRECTIVE ACTION-N                         | CORRECTIVE ACTION-MONE-FAILUNE NOT CONFIRMED.                                                                                                                                                                             |                                                   |                     |                                    |               |                                                                      |       |
| HTDRAULIC-A/B<br>BOOSTER                    | 80-04-108<br>ACTURTOR ASSEMALT                                                                                                                                                                                            | FAR<br>87-06550-5                                 | 87-6<br>600613      | 5                                  | <b>2</b> 9    | 7ES HOOG<br>NO H7778                                                 | ***** |
| FAILURE MODE-LEAK-E<br>TION.                | FAILURE MODE-LEAR-EXTERNAL. FAILURE MOT CONFIRMED BARING FAILURE ANALTBIB. MAY MANE BEEN CAUMED BY O-RING CONTAMINA<br>10m.                                                                                               | FAILURE AMLTBIB. MA                               | 30 MAIN 100         | CAUSED                             | è             | RING CONTANING                                                       |       |
| CCARECTIVE ACTION-1                         | CCARECTIVE ACTION-MOME-FAILUME NOT CONFIRMED.                                                                                                                                                                             |                                                   |                     |                                    |               |                                                                      |       |
| HTDRAULIC-A/B<br>BOCSTER                    | 98-04-118<br>ACTUATOR A887                                                                                                                                                                                                | FAR<br>27-06550-5                                 | 11000               | 2                                  | <b>5</b> 3    | HYD-RESEARCH<br>104700-1                                             | ••••• |
| FAILUNE MODE-OUT OF<br>CONTAMINATION.       | FAILLNE MODE-OUT OF TOLERANCE, MALL VOLTAGE WAS HIGH. FAILURE NOT CONFIRMED BY FAILURE AMALYBIB. PROBABLY CAUSED BY<br>Contamination.                                                                                     | MILURE NOT CONTIRMED BY                           | FAILURE             | AML 7818.                          | Ē             | ABLY CAUSED BY                                                       |       |
| CORRECTIVE ACTION-NOME.                     | OK.                                                                                                                                                                                                                       |                                                   |                     |                                    |               |                                                                      |       |
| HTDRAULIC-8/B<br>BOOGTER                    | 80-10-034<br>BOOSTER HTDRAULIC PUMP, BEAL                                                                                                                                                                                 | FAR<br>87-06566-1                                 | 2007E9              | SYCAMORE YES VICKERS<br>NO AA-6065 | 50            | Vickers<br>AA-40684-R-2A                                             |       |
| FAILURE PLOE-LEAK-E<br>KAK MAB CAUSCO BY A  | FAILURE PLOE-LEAK-EXTERNAL-A BIEADY DRIP OIL LEAK OCCURRED AT THE MATING PLANGE OF PUMP BODY AND THE COMPENSATOR. L<br>Eak has caused by a defocined teplom masher at the nating burpace of the compensator and the Pump. | RED AT THE MATING PLANS<br>BURFACE OF THE COMPENS | SE OF PURP          | BODY AND<br>THE PURP.              | Ĭ             | COPENSATOR. L                                                        |       |
|                                             |                                                                                                                                                                                                                           |                                                   |                     |                                    |               |                                                                      |       |

SEMERAL BYMMICS CONVAIR DIVISION

11 JUN 1966

| CONTICUITY ACTION-VERSION WAS INSTRUCTED TO IMPROVE THE SAMELITY CONTING. OF THE BAJECT TITE OF THE SAME SHADES.    CONTICUITY ACTION-VERSION WAS INSTRUCTED TO IMPROVE THE SAMELITY CONTING. OF THE BAJECT TITE OF WASHES.   CONTICUITY ACTION-VERSION WAS INSTRUCTED TO IMPROVE THE SAMELITY CONTING. OF THE BAJECT TITE OF WASHES.   CONTICUITY ACTION-VERSION WAS INSTRUCTED TO IMPROVE THE SAMELITY CONTING. OF THE BAJECT THE SAMELITY OF THE SAMELITY OF THE SAMELITY OF THE SAMELITY OF THE SAMELITY OF THE SAMELITY OF THE SAMELITY OF THE SAMELITY OF THE SAMELITY OF THE SAMELITY OF THE SAMELITY OF THE SAMELITY OF THE SAMELITY OF THE SAMELITY OF THE SAMELITY OF THE SAMELITY OF THE SAMELITY OF THE SAMELITY OF THE SAMELITY OF THE SAMELITY OF THE SAMELITY OF THE SAMELITY OF THE SAMELITY OF THE SAMELITY OF THE SAMELITY OF THE SAMELITY OF THE SAMELITY OF THE SAMELITY OF THE SAMELITY OF THE SAMELITY OF THE SAMELITY OF THE SAMELITY OF THE SAMELITY OF THE SAMELITY OF THE SAMELITY OF THE SAMELITY OF THE SAMELITY OF THE SAMELITY OF THE SAMELITY OF THE SAMELITY OF THE SAMELITY OF THE SAMELITY OF THE SAMELITY OF THE SAMELITY OF THE SAMELITY OF THE SAMELITY OF THE SAMELITY OF THE SAMELITY OF THE SAMELITY OF THE SAMELITY OF THE SAMELITY OF THE SAMELITY OF THE SAMELITY OF THE SAMELITY OF THE SAMELITY OF THE SAMELITY OF THE SAMELITY OF THE SAMELITY OF THE SAMELITY OF THE SAMELITY OF THE SAMELITY OF THE SAMELITY OF THE SAMELITY OF THE SAMELITY OF THE SAMELITY OF THE SAMELITY OF THE SAMELITY OF THE SAMELITY OF THE SAMELITY OF THE SAMELITY OF THE SAMELITY OF THE SAMELITY OF THE SAMELITY OF THE SAMELITY OF THE SAMELITY OF THE SAMELITY OF THE SAMELITY OF THE SAMELITY OF THE SAMELITY OF THE SAMELITY OF THE SAMELITY OF THE SAMELITY OF THE SAMELITY OF THE SAMELITY OF THE SAMELITY OF THE SAMELITY OF THE SAMELITY OF THE SAMELITY OF THE SAMELITY OF THE SAMELITY OF THE SAMELITY OF THE SAMELITY OF THE SAMELITY OF THE SAMELITY OF THE SAMELITY OF THE SAMELITY OF THE SAMELITY OF THE SAMELITY OF THE SAMELITY OF THE SAMELITY OF THE SAMELITY OF THE SAMELITY   |                                              |              | DIFFICULTIES REVIEW-HYDRAULIC SYSTEM-AIRBOAME | IAULIC BYSTEN-AIRBON           | ¥                    |                  |                                         |                          |                                         |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|--------------|-----------------------------------------------|--------------------------------|----------------------|------------------|-----------------------------------------|--------------------------|-----------------------------------------|
| SCHICK-TONCON WAS INSTRUCTED TO IMPROVE THE GUALLITY CONTROL ON THE SUBJECT TYPE OF WESHER.  SHOUTS WITHOUTED TO IMPROVE THE GUALLITY CONTROL ON THE SUBJECT TYPE OF WESHER.  SHOUTS WITHOUTED THE STATE THE ADAPTER PADS ON BOTH THE SHELT AND DUTLET ELECAN.  SHOUTS WITHOUTED TO CONFIDENCE.  SHOUTS WITHOUTED TO SHOUTS SECAME IT WAS REPORTED TO BE LEARING AT THE SHAFT SEAL.  SHOUTS WITHOUTED TO CONFIDENCE.  SHOUTS WITHOUTED TO CONFIDENCE.  SHOUTS WITHOUTED TO CONFIDENCE.  SHOUTS WITHOUTED TO SHALL SCOALD NOT BE CRIMING AT THE SHAFT SEAL.  CT-CRAMINATION. EMAINE NALLS COALD NOT BE CRIMING. THIS WAS CAUSED BY A POOR FILL AND BALEED OF THE HITD.  SCITCH-FILL AND BALEED PRAFFORNED ON THE HYDRAULIC SYSTEMS.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 8787EN<br>846-8787E                          | EN           | TEST/REPORT NUMBER<br>FAILED COMPOMENT NAME   | DIF DATA SOURCE<br>PART NUMBER | VEHICLE<br>DATE BIF  | 817E<br>71ME DIF | 1 N N N N N N N N N N N N N N N N N N N | NOOR NAME<br>SOR PART NO |                                         |
| SHOOTER WITHOUT ENDINGLE MAN THE ADAPTER PADS ON BOTH THE INAET AND GUTLET ELBOMS.  C-CEAN-EXTERNAL-ALIGHT SEEPAGE LEAK AT THE ADAPTER PADS ON BOTH THE INAET AND GUTLET ELBOMS.  ACTION-TOWN CONTINUES STRIPS TESTING THE ADAPTER PADS ON BOTH THE INAET AND GUTLET ELBOMS.  SHOOTE TOT CONTINUES STRIPS TESTING THE ADAPTER PADS ON BOTH THE INAET AND WITHOUT STRANGE. FAILURE COLD NOT BE CONTINUED TO INVITE THE ADAPTER THE STRANGE THE WAS VISABLE IN RESPONSE TO INVITE THE ADAPTER THE WORLD TO INVITE THE ADAPTER THE WORLD TO INVITE THE ADAPTER THE WORLD TO INVITE THE ADAPTER THE WORLD TO INVITE THE ADAPTER THE WORLD THE ADAPTER THE WORLD THE ADAPTER THE WORLD THE ADAPTER THE WORLD THE ADAPTER THE WORLD TO THE WIND ALLEN TO STRANGE THE WIND ACTUAL AND ALEED OF THE WIND ALLEN TO THE WIND ALLEN TO THE WIND ALLEN TO THE WIND ALLEN TO THE WIND ALLEN TO THE WIND ALLEN TO THE WIND ALLEN TO THE WIND ALLEN TO THE WIND ALLEN TO THE WIND ALLEN TO THE WIND ALLEN TO THE WIND ALLEN TO THE WIND ALLEN TO THE WIND ALLEN TO THE WIND ALLEN TO THE WIND ALLEN TO THE WIND ALLEN TO THE WIND ALLEN TO THE WIND ALLEN TO THE WIND ALLEN TO THE WIND ALLEN TO THE WIND ALLEN TO THE WIND ALLEN TO THE WIND ALLEN TO THE WINDARLE STRIPS.  CT-CRAMINOM BELLITO.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | CORRECTIVE ACTI                              | I ON- VENDOR | WAS INSTRUCTED TO IMPROVE THE GUAL            | .117 CONTROL ON THE            | TOPTECT TV           |                  | MER.                                    |                          | *************************************** |
| ACTION-FAILURE TOT CONFINED.  SECRETICAL SECRETARIA SYSTEM AT THE ABAPTER PADS ON BOTH THE IMAET AND DUTLET ELBONG.  SECRETICAL SYSTEM SYSTEM TESTING FAR SOOD BY E EMELINE EMISSING DEPARTS OF AND MYTTS  ACTION-MONE. CAUSE OF FAILURE MOT CONFIRMED.  SECRETARIA SYSTEM AT THE SHAPTS BECAUSE IT WAS METORITED TO BE LEAKING AT THE SHAPT BECA.  ACTION-MONE. FAILURE MOT CONFIRMED.  DAZUS/83-440-04-53 COMPOSITE-PRO/DR. 530 S-3 TESTING AT THE MAT SECRETARIA MODELS OF THE HTD  CT-CONTAMINATION. EMELIS COLAD NOT BE CRITAINED. THIS WAS CAUSED BY A POOR FILL AND BALEED OF THE HTD  CT-CONTAMINATION. EMELIS COLAD NOT BE CRITAINED. THIS WAS CAUSED BY A POOR FILL AND BALEED OF THE HTD  CT-CONTAMINATION. EMELIS COLAD NOT BE CRITAINED. THIS WAS CAUSED BY A POOR FILL AND BALEED OF THE HTD  CT-CONTAMINATION.  CT-CONT | HVDRAULIC-E/B<br>BOOSTER                     |              | 80-10-055<br>BOOSTER HYDRAULIC PUMP, SEAL     | FAR<br>27-08566-1              | :                    | <b>C</b> 3       | YES VIC                                 | ER 5<br>10094-A-EA       | •                                       |
| FOR SHORT OF STATE OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STATES OF STAT | FAILURE MODE-LE                              |              | AL-BLIGHT BEEPAGE LEAK AT THE ABAPT           | IER PADS ON BOTH THE           | INET AND             | שוני             |                                         |                          |                                         |
| ACTION-MONE, CAUSE OF FAILURE NOT CONFIDENCE. FAILURE COALD MOT DE CONFIDENCE DE DATE CONTRACTOR DE DET TO TRICAL CONECTION.  ACTION-MONE, CAUSE OF FAILURE NOT CONFIDENCE.  ACTION-MONE, FAILURE NOT CONFIDENCE.  ACTION-MONE, FAILURE NOT CONFIDENCE.  BE-GASSON BETAINS AT THE BHANT BEAL.  ACTION-MONE, FAILURE NOT CONFIDENCE.  BAZUR/83-440-04-55 COMPOSITE-PRO/DPL 550 8-3 TES 600515.  BAZUR/83-440-04-55 COMPOSITE-PRO/DPL 550 8-3 TES 600515.  CT-CRAMITIC OPERATION.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | HTDRAULIC-A/B                                |              | 98-04-159<br>ACTUATOR                         | FAR<br>E7-08550-5              | 940<br>900712        | ET ET            |                                         |                          |                                         |
| SECONTAMINATION. EMETHE COULD NOT BE CONTINUED. THIS WAS CAUGED BY A POOR FILL AND BALEED OF THE HYD.  CT-CAMIDOMA DELATED.  CT-COMITOMA DELETP PERFORMED.  CT-COMITOMA DELETP PERFORMED BY A POOR FILL AND BALEED OF THE HYD.  CT-COMITOMA DELATED.  CT-COMITOMA DELATED.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | A POOR ELECTRIC                              |              | HOM.                                          |                                |                      |                  |                                         |                          |                                         |
| ACTION-NOME. FAILURE NOT CONFIRMED.  ACTION-NOME. FAILURE NOT CONFIRMED.  DAZUB/83-4ND-04-53 CONFORMED. 1000818 6-9 VES 600818 NO.  E-CONTAMINATION. EMETHE BULLS COULD NOT BE CRITIMED. THIS WAS CAUGED BY A POOR FILL AND BLEED OF THE HYD M.  CT-ERRATIC OPERATION.  ECT-COMMIDDIAN DELATED.  ACTICAPPILL AND BLEED PRAFORMED ON THE WYDRAULIC BYSTEMS.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | HTDRAULIC-A/B                                |              | 98-04-148<br>ACTWION SEAL                     | FAP.<br>27-04550-4             | 1                    | ETA              | 1 -                                     |                          | •                                       |
| DAZUS/83-4MO-04-33 COMPOSITE-PRO/DPL 83D 8-3 YES 600515 MO E-COMIANIMATION. EMEINE MALLS COULD NOT BE COTAINED. THIS WAS CAUGED BY A POOR FILL AND BALEED OF THE HTD H. CITERRATIC OPERATION. ECT-COUNTDOMN DELATED. ACTICAL-FILL AND BLEED PERFORMED ON THE HYDRALLIC SYSTEMS.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | FAILURE MODE-LE                              |              | MAL. ACTUATOR REMOVED BECAUSE IT WAS          | IS REPORTED TO BE LE           | MING AT T            | A Prof.          | E.A.L.                                  | •                        |                                         |
| TE MODE-CONT<br>BTBTEN.<br>M EFFECT-ERN<br>LE EFFECT-CONT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | HYDRAULIC-A/8                                |              | DAZUB/83-4MD-04-53                            | COMPOSI TE-FRO/DPL             | 930                  | 1:               | Ş                                       |                          | :                                       |
| WHICLE EFFECT-ERRATIC OPERATION. WENICLE EFFECT-CONTIDONA DELATED. CORRECTIVE ACTION-FILL AND BLEED PLAFORNED ON THE HYDRAULIC SYSTEMS.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | BODSIER<br>FAILURE MODE-CO<br>RAULIC BYBYEM. |              | M. EMEINE HULLS COULD NOT BE CRIME            | NED. THIS WAS CAUDE            | 600418<br>3 87 A P00 | 4 11 4           | 0 8.CE6                                 | OF THE HTD               | ·                                       |
| WEMICLE EFFECT-COMIDOMN DELATED.  COMECTIVE ACTICH-FILL AND BLEED PLAFORNED ON THE MYDRAULIC SYSTEMS.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | STRIEM EFFECT-E                              | TRAATIC OPE  | RATIOM.                                       |                                |                      |                  |                                         |                          |                                         |
| CORRECTIVE ACTION-FILL AND BLEED PLAFORNED ON THE MYDRAULIC SYSTEMS.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | WENTERE EFFECT-                              | COUNTDOLL    | DELATED.                                      |                                |                      |                  |                                         |                          |                                         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | CORRECTIVE ACTI                              | CH-FILL AN   | ID BLEED PEAFORNED ON THE MYDRAULIC           | SYSTEMS.                       |                      |                  |                                         |                          |                                         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                              |              |                                               |                                |                      |                  |                                         |                          |                                         |

PAGE 011\$

GENERAL DYNAMICS CONVAIR BIVISION

18 1CH 1866

| B181EH<br>B08-8181EH               | TEST/REPORT NUMBER FAILED COMPONENT MANE                                                                                     | DIF DATA BOUNCE                                              | DATE DIP         | DATE DIF TIME DIF OTH | ON LEVENDON NAME      |                                         |
|------------------------------------|------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|------------------|-----------------------|-----------------------|-----------------------------------------|
| NTDRAULIC-A/B                      | Be-04-110<br>SERVO ACTUATOR ABBENGLY                                                                                         | FAR<br>E7-06860-3                                            | ££<br>\$00804    | <b>9</b> 40           | VES HYD-SESEABCH      | Ţ.                                      |
| FAILURE MOG-LTAK-E                 | FAILURE MOGELLAR-ERFERMAL. FAILURE NOT CONFIRMED BY TESTING, MAY HAVE BEEN CAUBED BY O-RIMG CONTAHIMATION.                   | ESTING. MAY HAVE BEEN C                                      | AUBED BY G       | ##1## CG              | ITANIBA TLOP.         | · · · · · · · · · · · · · · · · · · ·   |
| COARECTIVE ACTION-N                | CORRECTIVE ACTION-NOME-FAILURE NOT CONTINED.                                                                                 |                                                              |                  |                       |                       | <del></del>                             |
| MYDHAULIC-A/B                      | 98-04-101<br>ACYUATON ABBEMBL//BEAL                                                                                          | FAR<br>27-06550-8                                            | 960<br>601931    | £                     | YES HOOG<br>HO H7773  | 2010                                    |
| FAILURE MODE-LEAK-E<br>MED.        | FAILURE MODE-LEAR-EKTERMAL. REMOVED PROMIBBILE POR EKCEBBIVE LÉARAGE AT THE GMAFT BEAL-PAILURE COULD NOT BE COMFIR<br>Elu:   | CEDDIVE LEARAGE AT THE                                       | CAAFT BEAL       | .Pallune              | COULD NOT BE COM      | <u> </u>                                |
| CORRECTIVE ACTION-NOME.            | CHE. CAUSE COULD NOT BE DETERMENTS.                                                                                          |                                                              |                  |                       |                       | <u> </u>                                |
| HTDRAULIC-A/B                      | 94-10-030<br>HTDGAULIC TANK, BEAL                                                                                            | FAR<br>27-06551-5                                            | <b>@00319</b>    |                       | YES PANTUR<br>NO 6865 |                                         |
| FAILURE MODE-INTERH                | FAILURE HOOE-INTERMAL LEAR. INTERMAL GAS LEAKAGE PAST THE PISTON TO THE HYDRAULIC SIDE.                                      | THE PISTON TO THE HYDRA                                      | u.ic sib£.       |                       |                       |                                         |
| 360N-H0113Y 3A1437- #03            | OME - FAILURE NOT CONTINED.                                                                                                  |                                                              |                  |                       |                       |                                         |
| HYDRAULIC-A/B<br>BOOSTER           | 98-04-114<br>VALVE-BOCGTER ACTUATOR ASSEDSELY: SE ST-D8550-8<br>RVO                                                          | FAR<br>3LV, 9G 87-06550-9                                    | 818008<br>800818 | ž                     | 1£3 MOG<br>NO HTTTS   | • • • • • • • • • • • • • • • • • • • • |
| FAILURE MODE-ERRATIC OPERATION DUE |                                                                                                                              | TO CONTANIMATION REBULTING FROM IMPROPER CLEANING BY WENDON. | LEANING DY       | MODES.                |                       |                                         |
| CORRECTIVE ACTION-N                | CORRECTIVE ACTICAL-VENDOR INFORMED OF CONTANINATION PROBLEM AND PROPER CLEANING METHOD.                                      | BLEN AND PROPER CLEANIN                                      | 6 METHOD.        |                       |                       |                                         |
| HTDRAULIC-A/B                      | PB-04-101<br>ACTUATOR ABBENBL', SKAL                                                                                         | FAR<br>87-66880-8                                            | \$40<br>600300   | 5                     | TE* MOOF NO MITTE     |                                         |
| FAILURE HODE-LEAK-E<br>TRAED.      | F.ILUME HODE-LEAK-EKTERMAL, REMOYED PROM MISSILE FOM EKCESSIVE LEARAGE AT THE SMAFT BEAL. FAILUME COMUS MOT SE COMP<br>RACU. | INCESSIVE LEARAGE AT THE                                     | PART MA          | i. Faltu              | IE COMB NOT BE CO     | <u> </u>                                |
|                                    |                                                                                                                              |                                                              |                  |                       |                       |                                         |
|                                    |                                                                                                                              |                                                              |                  |                       | 444                   | Ţ:                                      |

| # # # # # # # # # # # # # # # # # # #           | GENERAL JAPANICO                                                                                  | JIPANICE<br>BIVIDION           |                     |                  |                                       |                               |                                         |
|-------------------------------------------------|---------------------------------------------------------------------------------------------------|--------------------------------|---------------------|------------------|---------------------------------------|-------------------------------|-----------------------------------------|
|                                                 | DIFFICULTIES REVIEW-HYDRAULIC BYSTEM-AIRDORNE                                                     | RAULIC BYSTEN-AIRBON           | ¥                   |                  |                                       |                               |                                         |
| BUB-BTSTEN                                      | TESTARPEL, T NUMBER<br>FAILED CONFORMAT NAME                                                      | DIF DATA SOURCE<br>PART NUMBER | WENICLE<br>DATE BIF | 110 July         | = = = = = = = = = = = = = = = = = = = | VENDOR NAME<br>VENDOR PART NO |                                         |
| CORRECTIVE ACTION-NOME.                         | CAUSE COULD NOT BE DETERMINED.                                                                    |                                |                     |                  |                                       |                               | •                                       |
| HYDRAULIC-A/B<br>BOOSIER                        | 98-04-114<br>VALVE-BODSTER ACTUATOR BERNO                                                         | FAR<br>27-06880-8              | 90100               | PACTORY          | 58                                    | H004<br>HTT78                 | • • • • • • • • • • • • • • • • • • •   |
| FAILURE HODE-ERRATIC OF                         | FAILUME MODE-ERRATIC OPERATION DUE TO CONTAMINATION RESULTIMS PRON IMPROPER CLEANINS BY WENDOR.   | ING PRON INPROPER CL           | CANING DY           | Windon.          |                                       |                               |                                         |
| CORRECTIVE ACTION-VENDO                         | CORRECTIVE ACTION-VENDOR INFORMED OF CONTAMINATION PROBLEM AND PROPER CLEANING METHOD.            | AND PROPER CLEANING            | METHOD.             |                  |                                       |                               |                                         |
| HTDRAULE-A/B                                    | 98-04-114<br>VALWE-SCOSTER ACTUATOR SERVE                                                         | FAR<br>27-06380-5              | 90600               | PACTORY          | VES MOD6                              | H006<br>H7778                 | ****                                    |
| PAILURE MOSE-ERRATIC OF                         | FAILURE MODE-ERRATIC OPERATION DUE TO CONTAMINATION REBULTING FROM IMPROPER CLEANING BY VENDOR.   | ING FROM INPROPER CL           | CANING DY           | WDGOA.           |                                       |                               |                                         |
| CORRECTIVE ACTION-VENDO                         | CORRECTIVE ACTION-VENCOR INFORMED OF CONTAMINATION PRODUCE AND PROPER CLEANING METHOD.            | AND PROPER CLEANING            | METHOD.             |                  |                                       |                               |                                         |
| HTDRAULIC-A/B<br>BOOSTER                        | 98-04-114<br>Valve-Booster actuator gerug                                                         | FAR<br>87-06880-8              | 989                 | PACTORY          | VES 11006<br>110 11777                | HOOS<br>H7778                 | ****                                    |
| FAILURE MODE-ERRATIC OF                         | FAILUME MODE-ERRATIC OPERATION DUE TO CONTAMINATION MEDILITMS PROM IMPROPER CLEANING BY WENDOR.   | ING PROM INPROPER CL           | CANING DA           | KDOON.           |                                       |                               | ····                                    |
| CORRECTIVE ACTION-VEHIOR                        | CORRECTIVE ACTION-VEHICR INFORMED OF CONTAMINATION PROBLEM                                        | AND PROPER CLEANING NETHOD.    | METHOD.             |                  |                                       |                               |                                         |
| HTDRAULIC-A/B<br>BOOSTER                        | 90-04-08<br>ACTUATOR                                                                              | FAR<br>27-06550-5              | 470                 | 47.0             | VES MODE<br>10 H771                   | MD04<br>M7778                 | • • • • • • • • • • • • • • • • • • • • |
| FAILUME MODE-OUT OF TOLI<br>BE COMFIRMED.       | OF TOLERANCE-FAILED TO MALL WITH IN SPECIFICATION LIMITS DURING STETEM TESTING. FAILURE COALD NOT | FICATION LIMITS DAM!           | 8 87.CTE            | <b>16871146.</b> | 315                                   | K COM.B MOT                   |                                         |
| CORRECTIVE ACTION-MONE-NO CAUSE COULD DE POUND. | NO CAUSE COULD DE POUND.                                                                          |                                |                     |                  |                                       |                               |                                         |
|                                                 |                                                                                                   |                                |                     |                  |                                       |                               | _                                       |

PAILURE MODE-CONTANTANTION. THE UNIT FAILED TO INDICATE AT VARIOUS PRESSURE LEWELS. THE BOUNDON TUSE IN THE UNIT UN B FILLED WITH RUST PREFERTING THE UNIT TO INDICATE A CHANGE IN PRESSURE.

768 80CM63768 80

FAR E7-06966-3

98-10-049 P4E88URE 646E

HYDRAULIC-A/B

GENERAL BYNAHICS CONVAIR DIVISION

| STATEN<br>SUB-STATEN                                       |                                                                                                                                                                            |                                               |                             |                   |           |                               |                                         |
|------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|-----------------------------|-------------------|-----------|-------------------------------|-----------------------------------------|
| 3731EN<br>808-3731EN                                       | DIFFICULTIES REVIEW-H                                                                                                                                                      | DIFFICULTIES REVIEW-HYDRAULIC SYSTEM-AIRBORNE | Ä                           |                   |           |                               |                                         |
|                                                            | TEST/AEPORT NUMBER<br>FAILED COMPOSENT NAME                                                                                                                                | DIF DATA SOURCE<br>PART NUMBER                | WENICLE<br>DATE DIF         | 11 6 11 T         | ¥ 5       | VENDOR NAME<br>VENDOR PART NO |                                         |
| COMPACTIVE ACTIONAL OF THE COMPACTOR                       |                                                                                                                                                                            |                                               |                             |                   |           |                               |                                         |
| HYDRAULIC-A/B                                              | DRAULIC-A/B BB-04-084 FAR BOURDON TUBE BATERIAL DRAULIC-A/B BB-04-084 ACTUATOR ASSEMBLY 87-08550-6                                                                         |                                               | 70 INCOME.<br>350<br>800404 | 2.5               | 168 MOSS  | M005<br>W77's                 | • • • • • • • • • • • • • • • • • • • • |
| FAILURE MODE-LEAR-ERTERMAL                                 | LAR-ENTERMAL-SHAPT SEAL LEARED WHILE HYDRAULIC SYSTEM MAS PMESSURIZED AT 2500 PSIS WITH EMSIME CYCLIN                                                                      | LIC BYBTEM MAB PAEBBU                         | A1200 A7 (                  | 1800 P&16         | ž         | HEINE CYCLIN                  |                                         |
| CORRECTIVE ACTION-FAILURE                                  | ON-FAILURE UNCOPTRINED, NO CORRECTIVE ACTION TAKEN.                                                                                                                        | M TAKEN.                                      |                             |                   |           |                               |                                         |
| MYDRAULIC-A/B BOOSTER H                                    | 96-10-047<br>HTURALLIC PLEX HOSE                                                                                                                                           | FAR<br>27-06371-63                            | 918009                      | 15                | 768 46    | AEROGUIP<br>ATTONES           |                                         |
| FAILURE MODE-LEAR-EXTERNAL                                 | ERTERNAL LEARAGE OF HOME AT A POINT WHERE THE BRAIDED HOME COVER ENTERS THE SOCKET.                                                                                        | FOINT MERE THE PILA                           | ibts sost                   | CONTR ENI         |           | C 2004£1.                     |                                         |
| CORRECTIVE ACTION-MOME - FL                                | FAILURE NOT CONTINED.                                                                                                                                                      |                                               |                             |                   |           |                               |                                         |
| HTG4AULIC-A/B BOOSIE4                                      | 96-10-048<br>HTD4ALLC PLEX HORE                                                                                                                                            | FAR<br>87-06371-61                            | 4450                        | 5                 | 7C3 A6    | AEROBULP<br>860121-18-0286    |                                         |
| FAILURE MODELLEAN EXTERNAL ROMOGET TO                      | FALUNE MODELLEAR-EXTERMAL - EXTERMAL LEARAGE LOCATED AT THE JUNCTION OF THE BRAID AND DOCAET, FAILED DECAURE OF<br>Money balene and Locately Tokeuld sad Filting.          | ME JUNETION OF THE BA                         | 4 64 61A                    | KAET. PA          | 9         | ECAU <b>DE</b> CO A           |                                         |
| COMECTIVE ACTION-VENDOR NO                                 | CONFECTIVE ACTION- VENDOR NOTIFIED AND INSTRUCTED TO INSURE                                                                                                                | PROPER TORBLE VALUES BURING                   |                             | HORE FABRICATION. | CA 71 Q4  |                               |                                         |
| HYDRAULIC-AVB BE                                           | 96-04-050<br>ALTUATOR/O-8186 SEALS                                                                                                                                         | FAR<br>27-08590-5                             | 4£0                         | £.3               | 16.0 MOCS | HOCS<br>H7773                 | •                                       |
| PAILURE MODC-LEAK-EXTERNAL-<br>DIMANIC O-RING BEAL MAS HIC | FAILUME MODE-LEAK-EXTERMAL-ACTUATOR ASSEMBLY LEAKED AT MATIME PLAMBE DURIME BYBIEN TEBIIME AT 3000 PAIG. ROD ENG OF<br>Dimanic o-rime beal was micked on "HE immer radius. | ING PLANGE DURING BYE                         | 100 K811                    | # A? 300          | 2         | . RO CNC OF                   |                                         |
| CORRECTIVE ACTION-VCAR IBBU                                | CORNECTIVE ACTION-YCAR ISSUED TO WENDOR TO IMPROVE BUMLITY CONTROL DURING ASSEMBLY.                                                                                        | CONTROL BURLING ASSESS                        | j.                          |                   |           |                               |                                         |

CONVAIR DIVISION

11 104 1100

| (   |                                                                              | BIFFICULTIES REVIEW-HYDRAULIC SYSTEM-AIRBORNE                                                                                                                                                                           | AULIC SYSTEM-AIRBORI                       | ¥                                       |            |                     |                                                                                          |          |
|-----|------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|-----------------------------------------|------------|---------------------|------------------------------------------------------------------------------------------|----------|
|     | ATATEM<br>BUB-BTATEM                                                         | TEST/REPORT MURBER<br>FAILED COMPONENT NAME                                                                                                                                                                             | DIF DATA BOURCE<br>PART HUNBER             | VEHICLE BITE<br>DATE BIF TIME BAF       | 11 ME 01 F | 20                  | VENDOR NAME<br>VENDOR PART NO                                                            | ·        |
| īž. | HTDRAUE IC-A/B<br>BONS TER                                                   | 98-04-051<br>ACTUATOR-BERNO VALVE                                                                                                                                                                                       | FAR<br>27-06550-8                          | 290<br>600100                           | E          | 17 8 1006<br>1777   | H006<br>H1778                                                                            | ***      |
|     | PALLURE MODE-FAIL TO CPE.<br>ATOR WOULD HOT RESPOND TO<br>IMPROPER ASSEMBLY. | AIL TO CPERATE AT PRESCRIBED TIME-ACTUATOR MED BIANED HARD OVER UNEN IT BWOLLD MANE BEEM MULLED, ACTU<br>Respond to A/P bighald. Beavo valve dpool centering pim at one end und out of correct position due to<br>Belt. | BEASED HARD OVER I<br>TERING PIR AT CHE ES | 4 1 4 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | OULS HAY   |                     | OVER WICH IT SMOULS HAVE BEEN MULLED, ACTU<br>ONE END WAS OUT OF CORRECT POSITION BUE TO |          |
| 1   | CORRECTIVE ACTION-VCAR I                                                     | TON-YOAR ISSUED TO VENDOR TO INSTENSIFY INSPECTION SURVEILLANCE.                                                                                                                                                        | CTION SURVEILLANCE.                        | ,                                       |            |                     |                                                                                          | ******** |
| î ¥ | #784 U. 1 C- 4 / B<br>BOOSTER                                                | ACTUATOR ASSEMBLY                                                                                                                                                                                                       | CO#OSI TE-FACTORY<br>27-06350-5            | 990<br>600 <b>522</b>                   | FACTORY    | 7ES 8006<br>10 1177 | #006<br>#777a                                                                            | •        |
|     | FAILURE MODE-OUT OF TOLE!<br>L MTDRAULIC, PGESSURE INDI-                     | FAILURE MODE-OUT OF TOLERANCE, BOOSTER NO. 2 TAM ACTUATOR ASSEMBLY WAS REJECTED FOR PAILURE TO MAL., THE EMEINE UNTI<br>L Mydraulic, Pressume indicated 2500, This actuator assembly has replaced mith 8/N 805-0066.    | BYCHOLY WAS REJECTED WAS REPLACED WITH SA  | 7 POR FAIL                              | . OT 30.   | į                   | E CHEINE UNTI                                                                            |          |
|     | SYSTEM EFFECT-OPERATION                                                      | SYSTEM EFFECT-OFERATION STARTS TOO LATE, ACTUATOR FAILED TO MALL EMSING UNTIL PRESSURE WAS \$500 PSI.                                                                                                                   | MAL DIGINE UNTIL I                         | MESSURE .                               | N. 2900    | į                   |                                                                                          |          |
|     | WEMICLE EFFECT-COMPOSITE                                                     | -COMPOSITE DELAYED. ADDITIONAL SYSTEMS TEST GRAVINED TO PROVE SATISFACTORY OPERATION.                                                                                                                                   | COULAGE TO PROVE BAT                       | 118FACTORY                              | OCCATE     | á                   |                                                                                          |          |
| ].  | CONTRACTIVE ACTION-ACTUATOR REPLACED.                                        | OR REPLACED.                                                                                                                                                                                                            |                                            |                                         |            |                     |                                                                                          |          |
| ī ¥ | HYDRAULIC-A/B<br>BOOSIEA                                                     | PB-D4-G86<br>ACTUATOR-BE YAW                                                                                                                                                                                            | FAR<br>E7-06550-8                          | 200<br>2001 21                          | CTA        | 20                  | HCO6<br>H7778                                                                            | •••      |
|     | FAILURE MODE-OUT OF SPEC<br>D NOT BE VERIFIED. CADMIU                        | FAILURE HODE-OUT OF SPECIFICATION-FREQUENCY RESPONSE MAS 3 TO 7 DB SELOW 1 DB SPECIFICATION LIMITS. BENCH TEST COLL.) NOT BE VERIFIED. CADMIUM FLAKE CONTAMINATION WAS POUND.                                           | 70 7 DB RELOW 1 DB (                       | PECIFICAT                               | 19 CM      | *<br>:              | INCH TEST COUL                                                                           |          |
|     | CORRECTIVE ACTION-VCAR PI<br>IS MADE, ALL STOCK BURVEY                       | CORRECTIVE ACTION-YCAR TO MOGS TO REMOVE CADMINM PLATING FROM INDIDE OF ACTUATORS WARRE CONTACT WITH MYDAAULIC OIL<br>Is made, all stock aurveyed and returned to vendor.                                               | ON IMBIDE OF ACTUATE                       | 70 ec                                   | CONTACT    | 2 Z                 | PPRAULIC OIL                                                                             |          |
| £ ¥ | MYDRAULIC-A/B<br>BOOSTER                                                     | 98-0:-044<br>ACTUATOR PEEDBACK TRANSDUCER CORME 7-84501-608<br>GTOR                                                                                                                                                     | FAR<br>7-64503-508                         | 8198                                    | E .        | 5 8                 |                                                                                          |          |
|     | PAILURE MODE-BHORT LELEC                                                     | MORT GELECTRICAL). ACTUATOR FEEDBACK TRANSBUCER WAS BHORTED AND WOULD MOT INDICATE POSITION.                                                                                                                            | ER IMS SHORTED AIR I                       | PON B MOT                               | INDICATE   | ğ                   |                                                                                          |          |
|     | COMPLETIVE ACTION-PRESS.                                                     | CORRECTIVE ACTION-FREDS CK TRANSDUCEN CONNECTOR REPLACED WITH INPROVED TVPE.                                                                                                                                            | TH IMPROVED TYPE.                          |                                         |            |                     |                                                                                          |          |

GENERAL BYNAMICS CONTAIN BIVIDION

| 18 108 1866                              | NO                                                                                                                                                       | COMPAIR BIVIBION                                                                 |                             |            |                                       |   |
|------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|-----------------------------|------------|---------------------------------------|---|
|                                          | DIPPICALTIES REVIE                                                                                                                                       | DIFFICUATIES REVIEW-HYDRAULIC STREEM-AIRBORNE                                    | ¥                           |            |                                       |   |
| #31816<br>#31816-818                     | TEST/SEPORT NUMBER<br>FAILED COMPONENT NAME                                                                                                              | DIF DATA SOUNCE<br>PART NUMBER                                                   | WENTELE BITE DATE DATE DATE | 917E       | PRI VENDOR HAME<br>OTH VENDOR PART NO |   |
| MTDEAULIC-A/B<br>BOC-57ER                | 90-10-04E<br>HTDRAULIC TANKIO-RIM                                                                                                                        | FAQ<br>E7-06881-3                                                                | 902164                      | 5          | VES PANTEN<br>NO SSSS                 | • |
| FAILURE MOE-LEAR<br>DUE TO A DAMAGED O   | IN-EXTERNAL-EXCESSIVE EXTERNAL OIL LEAKAME AT THE COUPLING COLLAR (MUT) ON THE PORTED HYDRAULIC END<br>O RING.                                           | RANK AT THE COUPLING COL                                                         | .LAR (NUT) ON               | 14 POS 7   | ED NTDRAWIC END                       |   |
| CORRECTIVE ACTION                        | CORFECTIVE ACTION-INITIATED ACTION FOR PETTER MEAL INSTALLATION. ALSO THE VEGGOR WAS NOTIFIED AND INSTAUCTED TO SMP                                      | BTALLATION. ALBO THE WE                                                          | DOS NAS NOCI                | 918        | IMATRUCTED TO SMP                     |   |
| HYDRAULIC-A/B                            | 98-04-033<br>ACTUATOR ASSEMBLY                                                                                                                           | FAR<br>27-06350-5                                                                | 1 0031es                    | ET A       | VES 10006<br>100 167773               | : |
| FAILURE MODE-FAIL<br>ER IN TAN WHEN IT I | FAILURE MOE-FAIL DURING OPERATION-DURING AUTOPILOT BYBTEN<br>R IN TAN WHEN IT MORNALLY SHOULD MANE REMAINED IN THE WALL                                  | TRIEN MESPONSE TERTS THE ACTUATOR BRONE THE 8-5 EMSINE HAAD OV<br>MALL POSITION. | ACTUATOR BE                 | ř          | -1 ENGINE MAND OV                     |   |
| CORRECTIVE ACTION                        | CORRECTIVE ACTION-VCAR 1854ED TO THE VENOOR TO INSTITUTE CONTAMINATION CONTROL BURING BERND VALUE ASSENBLY.                                              | UTE CONTAMINATION CONTRO                                                         | L DURING BERT               | D VALVE    | ASSESSALY.                            |   |
| H7D4AL1C-A/B                             | A2C-27-035/P3-403-00-13<br>ACTUATOR A88EMBLY                                                                                                             | PLICHT<br>87-06550-6                                                             | 130 13<br>901184 0.         |            | 1K3 MD06<br>M0 M7773                  | : |
| FAILURE MODE-OUT C                       | OF TOLERANCE. BOOMER DEGINES OFFSET IN YAM BY APPROXIMATELY 5.8 BESAEES. OFFSET HOST PROSABLY THE USEED ACTUATOR LEMENT BOOK TO A BIAB DURING ALISHMENT. | IN VAN BY APPROXIMATELY<br>MAING ALIGNEENT.                                      | 1.0 MEANERS.                | 7 7 7      | EDST PROBABLY THE                     |   |
| STRICK EFFECT-HOME.                      | .:                                                                                                                                                       |                                                                                  |                             |            |                                       |   |
| WENICLE EFFECT-NOME.                     | į                                                                                                                                                        |                                                                                  |                             |            |                                       |   |
| CORRECTIVE ACTION-                       | H-LINK HOLEN.                                                                                                                                            |                                                                                  |                             |            |                                       |   |
| 475444,5-476<br>4005164                  | 64-04-329<br>ACTUATOR, O-RING                                                                                                                            | FAR<br>27-06880-5                                                                | 201103                      | PACTORY YE | 7£8 ND06<br>NO N7778                  | : |
| FAILURE MODE-LEAR                        | EXTRAMAL. YAM ACTUATOR ON 8-1 EMBINE LEAKED AT THE SHAFT BEAL BURING STANDSY AT A PRESSURE OF 100                                                        | CEARED AT THE BHAFT BE                                                           | AL DURING 87A               | 1087 AT    | PRESSURE OF 100                       |   |
| VENICLE EFFECT-POB                       | VENICLE EFFECT-POBBIBLE COUNTDOMN OR CONFOBITE DELAT OR REBEHEBLAE. LOBB OF VEHICLE B'ABILITY HAT OCCUR BLAIMP PLIB                                      | M RESCHEDULE. LOSS OF W                                                          | IMICIE B'ABIL               | 11 MAY     | XCUR BURING PLIG                      |   |
| CORRECTIVE ACTION-                       | COMPECTIVE ACTION-METIL PARTICLES MERE BETHERN SHAPT AND O-RING SEALS. WEAR 1884ED TO WENDOR.                                                            | ND O-KING SEALS. VEAR I                                                          | BUEB TO YEND                | Ŕ          |                                       |   |

GENERAL DYNAMICS CONVAIR DIVISION

13 JUN 1966

CONVAIN DISION

|                                                                                    | DIFFICULTIES REVIEW-HYDRAULIC SYSTEM-AIRSCRIME                                                                                                                                                                                                                               | IAULIC BYSTEN-AIRBOR                                                                                                                             | ¥                        |             |            |                                   |        |
|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|-------------|------------|-----------------------------------|--------|
| 373/EN<br>346-373/EN                                                               | TEST/REPORT NUMBER<br>FAILED COMPONENT NAME                                                                                                                                                                                                                                  | LUT DATA BOUNCE<br>PART NUMBER                                                                                                                   | VEHICLE<br>DATE DIF      | SITE PRI    |            | VENDOR NAME<br>VENDOR PART NO     |        |
| HTDRAULIC-A/B                                                                      | 90-10-038<br>HTDRAULIC ACCUMULATOR, O-REMS                                                                                                                                                                                                                                   | FAR<br>27-06584-3                                                                                                                                | 901198<br>891109         | 876-AA      | 5.8        | PEACOCK EM6.<br>81810-3           | •      |
| FAILURE MOE-CONTANIMATE<br>MIT FAILED AS SPECIFIED B                               | FAILURE MOE-CONTANIMATION. LEARAGE OF THE GAS PRECNARGE ACROSS THE PISTON TO THE HYDRALLIC SIDE OF THE UNIT. THE<br>HIT FAILED AS SPECIFIED BECAUSE OF EXCESSIVE PARTICLE CONTANIMATION ON THE O AND BACKUP RIMES.                                                           | ROSS THE PLATON TO<br>IIMATION ON THE O AN                                                                                                       | THE HYDRAL<br>D BACKUP I | LIC SIDE    | 8          | C 4617. 746 0                     |        |
| COGRECTIVE ACTION-17 18                                                            | CORRECTIVE ACTION-IT IS RECOMENDED THAT A PROGRAM BE ESTABLISHED TO ARRIVE AT A COMPATIDLE STRIKE LEVEL CONTANINAT                                                                                                                                                           | LISHED TO ARRIVE AT                                                                                                                              | A COMPATI                | DLE 8787I   | Š          | EL CONTANINAT                     |        |
| HYDRAULIC-A/B                                                                      | 98-10-041<br>HTDRALLIC TANE, O-RING                                                                                                                                                                                                                                          | FAR<br>E7-06591-5                                                                                                                                | 100                      | E.3         | 28         | VES FANTEX<br>NO 0865             | 696878 |
| FAILURE MODE-STRUCTURAL                                                            | - THE FLUID END OF THE HYDRAULIC TAME RUPTUMED.                                                                                                                                                                                                                              | UK RUPTUKD.                                                                                                                                      |                          |             |            |                                   |        |
| COFFECTIVE ACTION-THE TAI<br>CITCH TO PROVIDE A STANDA<br>CEDURE TO ADVERT SIMILAR | CORRECTIVE ACTION-THE TANK FAILED BECAUSE OF OWER - PRESSURIZATION OF THE HTDRAULIC SYSTEM. CONVAIR HAS INITIATED<br>TION TO PROVIDE A STANDARDIZED PROCEDURE FOR ADJUSTMENT OF THE RIBE-OFF DISCORMECT PANEL AND A PROPER OPERATING PR<br>EDUKE TO ADVERT SIMILAR FAILURES. | OVER - PRESSURIZATION OF THE HTDRAULIC STRTEN. CONVAIR HAS INITIATED A<br>ADJUSTMENT OF THE RISE-OFF DISCONMENT PANEL AND A PROPER OPERATING PRO | AULIC BYBI<br>MECT PANEL | Et. CONV.   | II MA      | S INITIATED A                     |        |
| HYDRAULIC-A/B                                                                      | 90-10-038<br>HYDRAULIC PLEX HOSE                                                                                                                                                                                                                                             | FAR<br>27-00571-53                                                                                                                               | 120<br>59103             | a p         | 7 0        | VES AEROGUIP<br>NO 666838-12-0060 | 76700  |
| FAILURE MODE-STRUCTURAL-                                                           | FAILURE MOE-STRUCTURAL-A SEVERE TUIST CAUSED A PERHANGNT DEFOUNATION OF THE MOME.                                                                                                                                                                                            | EFORM TION OF THE H                                                                                                                              |                          |             |            |                                   |        |
| CORRECTIVE ACTION-PROPER ACTION TO MINIMIZE SIMULAR FAILURES.                      | COMECTIVE ACTION-PROPER ACTION MAS INITIATED TO PERMINE BETTER INSTALLATION AND IMPRECTION OF SABJECT MOSE ASSEMBLE SIMULAR FAILURES.                                                                                                                                        | TTER IMSTALLATION A                                                                                                                              | D INSPECT                | 4<br>8<br>8 | 1 2 J.C. T | HOME ASSEMBL                      |        |
| HTDRAULIC A/B<br>BOOSTER                                                           | 90-10-037<br>HTDRAULIC ACCUMILATOR                                                                                                                                                                                                                                           | FAR<br>E7-06554-3                                                                                                                                | 270<br>50000             | Ĭ           | 20         | VES PEACOCK EM6.<br>NO 81810-8    | ****   |
| FAILURE MODE-INTERNAL LES<br>E CAUSE OF THE LEARAGE MA                             | LEAR. INTERNAL GAS PRE-CHARGE LEAKAGE ACROSS THE PISTON TO THE HYDRAULIC SIBE OF THE UNIT. TH<br>MAS DUE TO POROSITY OF THE PISTON.                                                                                                                                          | . ACROSS THE PISTON                                                                                                                              | 70 TAE #18               | PAUSC DI    | 8          | 7HE UN17. 7H                      |        |
| CORRECTIVE ACTION-ALL ACC                                                          | ACCUMULATORS THAT MERE IN STOCK OR AT THE VENDORS WILL BE CHECKED AND REPLACED IF POROUS. 60/<br>TO INSURE COMPORMANCE OF PUTURE ACCUMULATORS                                                                                                                                | OR AT THE VENDORS WILL BL                                                                                                                        | I CHECKED                | AND REPLY   | 9          | P PORQUS. 60/                     |        |

SENERAL BYNAMICS CONVAIR BIVISION

18 104 1886

| 18 104 1888                                                                                                                                                     | DIFFICULTIES REVIEW-HYDRAULIC STREEK-AIRSORNE                                                                                                                                                                                                                                                                                 | HAULIC STSTEN-AIRBOR                          | *                     |                  |            |                                                 | ſ             |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|-----------------------|------------------|------------|-------------------------------------------------|---------------|
| 3737EM<br>308-3737EM                                                                                                                                            | TEST/REPORT NUMBER<br>FAILED COMPONENT NAME                                                                                                                                                                                                                                                                                   | DIF DATA BOURCE<br>PART HUMBER                | WHICLE<br>DATE BIF    | 3116<br>110 3017 | # 0<br># 0 | MENICLE BITE PRI VENDOR PART NO                 | _ <del></del> |
| HTDRAULIC-A/B                                                                                                                                                   | 98-10-036<br>Hydraulic Flen Mose                                                                                                                                                                                                                                                                                              | FA4<br>87-06871-80                            | 330000                | <b>E</b> T T     | 20         | TES AEROGUIP<br>NO 67501E L-0171                |               |
| FAILURE MOG-LEAK-ENTERN                                                                                                                                         | FAILURE MODE-LEAR-ERIERML-ERTERML LEARAGE BETWEEN THE B WUT AND THE MIPPLE.                                                                                                                                                                                                                                                   | MUT AND THE HIPPLE.                           |                       |                  |            |                                                 |               |
| CORRECTIVE ALTION-NOME-LEAKAGE NOT CONFIRMED.                                                                                                                   | AKAGE NOT CONFIRMED.                                                                                                                                                                                                                                                                                                          |                                               |                       |                  |            |                                                 |               |
| MIDRAULIC-A/B                                                                                                                                                   | 98-10-036<br>Hydraulic Flex Mose                                                                                                                                                                                                                                                                                              | FAR<br>27-06571-51                            | <b>25</b>             | Ë                | 50         | VES AEROGUIP<br>NO 675011 L-0066                | ****          |
| FAILURE MODE-LEAK-EXTERM                                                                                                                                        | FAILURE MOG-LEAK-EXTERML-EXTERML LEAKAGE BETNEEN BRAID AND BLEEVE.                                                                                                                                                                                                                                                            | AND MEEVE.                                    |                       |                  |            |                                                 |               |
| CORRECTIVE ACTION-NOME-LEAKAGE . AT CONTINED.                                                                                                                   | AKAGE OF CONTINED.                                                                                                                                                                                                                                                                                                            |                                               |                       |                  |            |                                                 |               |
| HTDRAULIC-A/B                                                                                                                                                   | 90-10-033                                                                                                                                                                                                                                                                                                                     |                                               | 120                   | Ę                | 5 5        | TES VICKERS                                     | 848872        |
| FAILURE MODE-EXTERNAL LEAK, A M<br>REED TO ESSO PSIG.<br>COMMECTIVE ACTION-THE HYDRALLIC<br>ATED ACTION TO CHANGE, APPROPATE<br>EN TO PREVENT SIMILAR FAILURES. | FAILURE MODE-EXTERNAL LEAK, A MYDRAULIC LEAK IN THE BODDTER PURP CASING MAS DISCONTAED WHEN THE ACCUMULATION MAS CHA GED TO 2030 PSIG.  COMMECTIVE ACTION-THE MYDRAULIC SYSTEM MAS ONER - PMESSURIZED DURING CHARGING OF THE ACCUMULATION. CONVAIR HAS INITIS AT TO PRECENT SIMILAR FAILURES.  H TO PRECENT SIMILAR FAILURES. | IR PURP CASING MAB OF                         | SCOWLESS V            | PER TIE          | ACCUMAN.   | LATOR MAS CHA<br>AIR MAS INITI<br>TORALLIC BYST |               |
| MYDRAULIC-A/8                                                                                                                                                   | A2H-27-332/FC-4CU-01-33                                                                                                                                                                                                                                                                                                       | COMPOSITE-FACTORY                             | S.                    |                  | 1          | 900                                             |               |
| 90051E9                                                                                                                                                         | ACTUATOR                                                                                                                                                                                                                                                                                                                      | £7-0£350-\$                                   | 1000                  |                  | ¥          | 2442                                            |               |
| FAILURE MOE-EKRATIC OPER                                                                                                                                        | FAILURE MCE-ERRATIC OPERATION-VARIATIONS IN BOOSTER ND. 5 YAM PEEDBACK VOLTAGES MEME COSERVED. THIS CONDITION DID<br>NOT OCCUR ON POST COMPOSITE TESTING AND MAS ATTRIBUTED TO AIR IN THE HYDRAYLIC SYSTEM.                                                                                                                   | I YAN PEEDBACK WOLTAS<br>NIR IK THE HYDRAYLIC | ES VERE CI<br>SYSTEM. | BERNEU.          | TH18 C     | 010 HOLLION 010                                 |               |
| BYBIEN EFFECT-ENNATIC OFENATION.                                                                                                                                | RATION.                                                                                                                                                                                                                                                                                                                       |                                               |                       |                  |            |                                                 |               |
| WENICLE EFFECT-COMPOBITE POBITE POBITE REBUIRED TO I                                                                                                            | VEMICLE EFFECT-COMPOSITE DELAYED. AIR IN HYDRAULIC SYSTEM CAUSED UNEXPECTED VARIATIONS IN EMSINE POSITION. POST CON<br>Posite teste resulted to show proper statem operation.                                                                                                                                                 | CAUGED UNEXPECTED VA                          | ALATION               | # C# 1           | 1          | 104. P047 COM                                   |               |
| CONSECTIVE ACTION-NOT ANOMAL                                                                                                                                    | · ·                                                                                                                                                                                                                                                                                                                           |                                               |                       |                  |            |                                                 |               |

GENERAL BYNAMICS CONVAIR BIVISION

15 JUN 1966

|                                                                               | DIFFICULTIES ACVICH-HYDRAULIC SYSTEN-AIRDORNE                                                                                                                                                                                                                                                                          | MAULIC BYBTEN-AIRBOT                                        | Ä                          |           |            |                                                                    |        |
|-------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|----------------------------|-----------|------------|--------------------------------------------------------------------|--------|
| 8787EH<br>846-8787EH                                                          | TEST/MEPORT MUMBER FAILED COMPOMENT NAME                                                                                                                                                                                                                                                                               | DIF DATA SOURCE<br>PART NUMBER                              | WENICLE<br>DATE DIF        | 11 0 TT   | £ 5        | WENICLE BITE   MENDOR MANE<br>BATE BIP TIME BIP OTH WEN'OR PART NO |        |
| MYDRAULIC-A/B<br>BOOSTER                                                      | BO-10-031<br>Hydraulc flex Hobe                                                                                                                                                                                                                                                                                        | FAR<br>87-06871-43                                          | 990726                     | 97C.      | 28         | TES AEROGUIP<br>NO 677085-8-016                                    | :      |
| FAILURE MODE-EXTERNAL                                                         | ITERNAL LEAK, LEAKING AT EITHER CHE CR BOTH ENG FITTINGS.                                                                                                                                                                                                                                                              | END FITTIMES.                                               |                            |           |            |                                                                    |        |
| A REVISED MANUFACTURING PROCEDURE.                                            | CONTROLLE ALLIONALL, AFECTIVE HOUES RETURNED TO THE VEHIOR FOR REPLACEMENT. THE VEHIOR IS ASSEMBLING HEM HOSES TO<br>A REVISED MANUFACTURING PROCEDURE.                                                                                                                                                                | OR FOR AEPLACEMENT.                                         | THE MODER                  | 16 AB0C   | Ĭ          | 6 MEW HORES T                                                      | •      |
| HTDRAULIC-A/B<br>BOUSTER                                                      | B8-10-031<br>HTDRALLIC FLEX HOSE                                                                                                                                                                                                                                                                                       | FAR<br>27-06573-47                                          | 887088                     | 94¢.      | ₽ Q        | VES AEROQUIP<br>NO 677025-6-0140                                   | •      |
| FALLURE MODE-EXTERNAL                                                         | FALLURE MODE-EXTERNAL LEAK. LEAKING AT EITHER CHE CR BOTH END PITTINGS.                                                                                                                                                                                                                                                | DO PITTIMES.                                                |                            |           |            |                                                                    | ,      |
| CORECTIVE ACTION-ALL DEFECTIVE HO<br>A REVISED MANUFACTURING PROCEDURE.       | CORRECTIVE ACTION-ALL DEFECTIVE HORES RETURNED TO THE VENDOR FOR REPLACEMENT. THE VENDOR IS ASSEMBLING NEW HORES TO                                                                                                                                                                                                    | OR FOR REPLACEMENT.                                         | THE VENEOR                 | 10 ABBC   |            | 6 NEW HORES T                                                      |        |
| MYDRAULIC-A/B<br>BOOSTER                                                      | 88-10-031<br>Hydraulic Plex Hose                                                                                                                                                                                                                                                                                       | FAR<br>27-00571-51                                          | \$2005                     | 946.      | <b>2</b> 0 | YES AEROQUIP<br>NO 675011 L-0000                                   | ****   |
| FAILURE MODE-EXTERNAL                                                         | FAILURE MODE-EXTERNAL LEAK, LEAKING AT EITHER ONE OR BOTH END FITTINGS.                                                                                                                                                                                                                                                | DO FITTINGS.                                                |                            |           |            |                                                                    |        |
| CORRECTIVE ACTION-ALL DEFECTAVE HO<br>A REVISED MANUFACTURING PROCEDURE.      | CORECTIVE ACTION-ALL DEFECTAVE HOSES RETURNED TO THE VENDOR FOR REPLACEMENT. THE VENDOR IS ASSEMBLING NEW HOSES TO<br>A REVISED NAMERACTURING PROCEDURE.                                                                                                                                                               | OR FOR REPLACEMENT.                                         | THE VENDOR                 | 38 A 88E  | į          | 6 NEW HORES 7                                                      | •      |
| HYDRAULIC-A/B<br>BOOSTER                                                      | 88-10-028<br>BOOSTER HTDRAULIC ACCUMULATOR, O-RI 27-D8554-3<br>MG                                                                                                                                                                                                                                                      | FAR<br>1 27-06554-3                                         | 82<br>2708 2               |           | ğ Q        | VES PEACOCK EMS. C 688710<br>NO O.<br>51310-3                      | 017.00 |
| FAILURE MODE-STRUCTURAL<br>STREM OPERATION. EXTRI<br>F THE BACKUP RING OCCURS | FAILURE MODE-STRUCTURAL-INTERNAL 643 LEARAGE PAST THE PISTON TO THE MYDRAULIC SIDE OF THIS ACCUMALATOR DURING FIRST<br>SYSTEM OPERATION. EXTRUSION OF THE PISTON O RING THROUGH A MEAK BACKUP RING WAS THE CAUSE OF THE PAILURE. FAILURE O<br>F THE BACKUP RING OCCURRED DURING ASSEMBLY OR DISASSEMBLY BY THE VENDON. | DH TO THE HYBRAULIC<br>MEAK BACKUP RING NA<br>T THE VENDOR. | SIDE OF THE<br>S THE CAUSE | IS ACCUSE | 771        | A DURING FIRS<br>UME. FAILUME                                      | - 0    |

CORRECTIVE ACTION-THIS UNIT IS TO BE PRESSURE CYCLED AFTER A PROOF PRESSURE TEST AS PART OF THE ACCEPTANCE TEST PRO-CEDUME.

GENEA DYNAMICS CONVAIR DIVISION

FAILURE MODE-LEAR-EXTERNAL. FOST TEST INSPECTION REVEALED A LEART PLEX MOSE TO THE BL TAM ACTUATOR.

BIBIEN EFFECT-NONE

SENERAL BYNAMICS CONVAIR DIVISION

9965 NOF 81

|                                                       | DIFFICULTIES REVIEW-MYDRAULIC SYSTEM-AIRBORNE                                                                                                                                                               | DRAULIC STATEM-AIRBOR                         | ¥                                      |                |       |                                       |                                         |
|-------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|----------------------------------------|----------------|-------|---------------------------------------|-----------------------------------------|
| 8787EH<br>846-8787EH                                  | TEST/REPORT NUMBER<br>FAILED COMPONENT NAME                                                                                                                                                                 | DIF DATA SOURCE<br>PART NUMBER                | WEMICLE SITE<br>DATE DIF TIME DIF      | 11K 01F        | 2 5   | PRI VENDOR NAME<br>OTH VENDOR PART NO |                                         |
| VEHICLE EFFECT-NONE CORRECTIVE ACTION-FLEX P          | -NOME<br>OM-FLEX HOSE REPLACED AND FILL AND BLEED PERFORMED.                                                                                                                                                | POSMED.                                       |                                        |                |       |                                       | 99.40                                   |
| HTDRAULIC-A/B<br>BOOSTER                              | FTA46EB/F1-401-00-07<br>BWITCH-INTERNAL HYDRAULICS                                                                                                                                                          | COUNTDOM                                      | 70<br>800\$00                          | :              | 58    |                                       | *************************************** |
| FAILURE HODE-ERRATIC OPE<br>H TO DROPOUT INTERMITTENT | FAILURE HODE-ERRATIC OPERATION. DURING ENGINE FIRING, VIBRATIONS NERE CAUSING THE BOOGSER HYDRAULICS INTERNAL SMITC<br>H to dropout interrittently giving this signal to the TCC Panel and the ea recorder. | IATIONS WERE CAUSING<br>TANEL AND THE EA RECO | THE 8008TE<br>ROEA.                    | A M70AA        | 8017  | HIERMAL BWITC                         |                                         |
| STSTEM ESFECT-ERRATIC OF                              | STATEM EFFECT-ERRATIC OPERATION. ERRATIC INVALID SIGNALS SENT TO TCC PAMEL AND MECONDERS.                                                                                                                   | NENT TO TCC PANEL AND                         | MECONDER                               |                |       |                                       |                                         |
| VEHICLE EFFECT-NONE.                                  |                                                                                                                                                                                                             |                                               |                                        |                |       |                                       |                                         |
| CORRECTIVE ACTION-MODIFY                              | ON-MODIFY MOUNTING BRACKET.                                                                                                                                                                                 |                                               |                                        |                |       |                                       |                                         |
| HTDRAULIC-A/B<br>BOOSTER                              | B6-10-026<br>BOOSTER HYDRAULIC ACCUMALATOR; O-RI 27-D6554-B<br>NG                                                                                                                                           | FAR<br>11 87-0654-3                           | 55<br>560488                           |                | 20    | PEACOCK ENG. C<br>0.<br>51310-3       | •                                       |
| FAILURE MODE-INTERNAL LE                              | FAILURE MODE-INTERNAL LEKA - INTERNAL GAS 'EAKAGE PAST THE PISTON TO THE HYDRAULIC SIDE OF ACCUMULATOR.                                                                                                     | . PLSTON TO THE HYDRA                         | W.IC 810E                              | ACCUM          | MA 10 | •                                     |                                         |
| CORECTIVE ACTION-NOME -                               | CORRECTIVE ACTION-NOME - FAILURE WAS NOT CONFIRMED.                                                                                                                                                         |                                               |                                        |                |       |                                       |                                         |
| H7DRAULIC-A/8<br>80031ER                              | A6-10-CE3<br>BOOGTER HYDRAULIC TANK, BEAL                                                                                                                                                                   | FAR<br>27-06551-3                             | 980429                                 | arc.           | 2 9   | PANTER NEG COR<br>P                   | :                                       |
| FAILURE MODE-INTERNAL LE                              | FAILUME MODE-INTERNAL LEAR - INTERNAL 648 LEARAGE PAST THE TANK PISTON TO THE MYDRAULIC SIDE OF THE TANK.                                                                                                   | TAME PLATON TO THE                            | NVDRAULIC                              | <b>30 30 1</b> | 7 3E  | · ·                                   |                                         |
| CORRECTIVE ACTION-NONE -                              | - FAILURE MAS NOT CONFIRMED.                                                                                                                                                                                |                                               |                                        |                |       |                                       |                                         |
| MYDRAUL IC-A/B<br>BOOSTER                             | 98-10-038<br>Medalic Plex Mose                                                                                                                                                                              | FAR<br>87-06571-58                            | ## ## ## ## ## ## ## ## ## ## ## ## ## | <b>2.3</b>     | # Q   | YES AEROSUIF<br>NO 67501E L-0171      | 77                                      |
| FAILURE MODE-EXTERNAL LE                              | FAILURE MODE-EXTERNAL LEARAGE BETWEEN THE B MUT AND THE MIPPLE.                                                                                                                                             | PPLE.                                         |                                        |                |       |                                       | ·····                                   |
| CORRECTIVE ACTION-NOME-L                              | ON-NOWE-LEAKAGE NOT CONFIRMED.                                                                                                                                                                              |                                               |                                        |                |       |                                       |                                         |
|                                                       |                                                                                                                                                                                                             | **************************************        |                                        |                |       |                                       | <b>-</b>                                |

GENERAL BYNAMICS CONVAIR BIVIBION

11 104 1156

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | DIFFICULTIES REVIEW-                                                                                                                                                                                                                                                                                                                                               | DIFFICULTIES REVIEW-HYDRAULIC SYSTEM-AIRBORNE                               | ¥                                     |                                  |            |                                                    | 1           |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|---------------------------------------|----------------------------------|------------|----------------------------------------------------|-------------|
| 87.8.1E.N. 84.8.1E.N. | TEST/REPORT HUMBER<br>FAILED COMPONENT NAME                                                                                                                                                                                                                                                                                                                        | DIF DATA SOURCE<br>PART NUMBER                                              | VENICLE BITE<br>DATE DIF TIME DIF     | 111C<br>71ME D:F                 | 9 N I      | VENDOR NAME<br>VENDOR PART NO                      | <del></del> |
| MTDEAULIC-A/B<br>BCO31ER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 98-10-015<br>Hydraule Relief Valve                                                                                                                                                                                                                                                                                                                                 | FAN<br>7-00E11-B                                                            | 36<br>390214                          |                                  | <b>2</b> 9 | YES BENDIK-VICAERS                                 | •           |
| FAILURE MODE-OUT OF TOL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | FAILURE MODE-OUT OF TOLERANCE. BOOSTER MTDRAULIC SYSTEM PRESSURE IMS SELOM MIMIMUM MESUIREMENTS<br>Corrective action-mone. Failure mot confirmed.                                                                                                                                                                                                                  | PRESSURE IMS BELOW HIN                                                      | 11 mm RC+11                           |                                  |            |                                                    |             |
| HTDRAULIC-A/B                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | ZC-7-EDB/<br>HTDRAULIC PUP (COFFINATOR                                                                                                                                                                                                                                                                                                                             | FL1647<br>27-00386-1                                                        | 118                                   | = †                              | 8 5        | NO VICKERS INC.<br>YES AA-60894-R-2A               |             |
| FAILURE MODE-ERRATIC OF<br>O PROBABLE STICKING. A S<br>PEAK NACHITUDE OF 2900<br>3300 PSIG MAINTAINED.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | FAILURE MODE-ERRATIC OFERATION-AN OSCILLATION OF APPROX 17 SEC DURATION IN BOOSTER MYDRAULIC PURP COMPENSATOR DUE T<br>O PROBABLE STICKING, A SAW TOOTH PRESS PATTERN CHRRACTERIZED BY THE CRACKING AND RESEATING OF THE VALVE OF A PEAK TO<br>PEAK MACHITUDE OF 2500 TO 3500 PSIG. BY 17.5 SEC THE COMPENSATOR EVIDENTLY MORKED LOOSE AND A STEADY STATE PRESS OF | 17 MEC DUMATION IN BOC<br>12ED BY THE CRACKING AN<br>MENNATOR EVIDENTLY WON | ATER HTDRA<br>D RESEATIN<br>RED LOOSE | LLIC PUR<br>F OF THE<br>AND A BT | 4 A L A    | PENSATOR DUE 7<br>E OF A PEAK TO<br>BIATE PRESS OF |             |
| STSTEM EFFECT-ERRATIC O                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | STRICH EFFECT-ERRATIC OPERATION. STREM DISPLATED OBCILLATION IN HIGH PRESSURE UNTIL ST.S SECONDS. VEHICLE EFFECT-NOME.                                                                                                                                                                                                                                             | LATION IN HIGH PRESSURE                                                     | seric 17.                             | <b>96</b> 03 <b>318 8</b>        | ÷          |                                                    |             |
| CORRECTIVE ACTION-A MER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | CORRECTIVE ACTION-A BERIES OF TESTS TO DUPLICATE AND ISQUATE SOURCE OF TROUBLE AND BLINIMATE SAME VENE CONDUCTED.                                                                                                                                                                                                                                                  | CLATE SOUNCE OF TROUBLE                                                     | MO ELIM                               | MATE BAN                         | Ş          | r conductes.                                       |             |
| HYDRAUL (C-A/B                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 38-10-017<br>HYDAALLIC CONTROL BIAPMAGN                                                                                                                                                                                                                                                                                                                            | FAR<br>7-65853                                                              | 25<br>5801.81                         |                                  | <b>2</b> 8 | TES PACIFIC AUTOMO                                 | 5           |
| FAILURE MODE-FAILURE TO<br>AM INTERNAL MIDRAULIC PR                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | FAILURE HODE-FAILURE TO OPERATE A PRESCRIBED TIME-DURING COMDUCTANCE OF A FLIGHT TEBT PROCEDURE TEBT ON MIBBILE SA<br>Am internal midraulic pressure bighal was not received, which caused a cutoff bighal to be initiated.                                                                                                                                        | 6 COMBUCTANCE OF A FLIG<br>MICH CAUBED A CUTOFF I                           | MT TEST PR                            | OCEDUAL<br>E INITIA              | 169        | ON MISSILE SE                                      |             |
| CORECTIVE ACTION-NOME-AM INVEST<br>FOR ADDITIONAL CORECTIVE ACTION.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | ON-MONE-AM IMMESTIGATION REVEALED IMAT IME BMITCMES DID NOT CAUBE IME ABOME PAILURE. BEE FAR-60-003<br>Oarective action.                                                                                                                                                                                                                                           | HE BHITCHES DID NOT CAN                                                     | 18E THE ABO                           | ME PAILU                         | j.         | EE FAR-60-003                                      |             |
| HTDRAULIC-A/B                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 2C-7-1:1/PE-502-00-03<br>HTDRAULIL PUMP                                                                                                                                                                                                                                                                                                                            | FL1547<br>87-08366-1                                                        | 34<br>16183                           | * 0                              | ដូន        | TES VICKERS<br>HO AA-60594-R-2A                    |             |
| FAILURE PTOS-ERRATIC OF BELLATIONS OF \$300 TO 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | FAILURE PTOS-ERRATIC OPERATION, ALTERNATE CACCHING AND RESEATING OF THE AIRBORNE MELIEF VALUE CAUSED PEAR TO PEAR O<br>Beillations of 2300 to 3500 psia until es seconds of plight, Probable cause was sticking of the Hidraulic Pump Compe                                                                                                                        | RESEATING OF THE AIRBOF<br>ENT. PROBABLE CAUSE UNI                          | NE RELIEF<br>DICKING                  | VALVE CA                         | USED       | PEAR TO PEAR O                                     |             |

BIBIEM EFFECT-ERRITIC OFERATION, OBCILLATION OF THE MYDRAULIC PREBSUNE BEINCEN EBDG AND BBDG PBIA, NORMAL OPERATING PPERAGE OF BJJG PBIA HAR ATTAINED AT ES BECOMDS WHEN PUMP COMPENSATOR STOPPED BTICKING.

MEMICIE EFFECT-NOME.

MBA TOR.

.1

CONVAIR DIVISION

9941 NAT 51

# DIFFICULTIES REVIEW-NYDRAULIC SYSTEM-AIRBORNE

|                                     |                                  | THE STATE OF THE STREET OF THE STREET                                                                                                             | AUCIC STRICK-AIRECK            |                     |                  |               |                                                                      |          |
|-------------------------------------|----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|---------------------|------------------|---------------|----------------------------------------------------------------------|----------|
| 200                                 | SYSTEM<br>SUG-SYSTEM             | TEST/REPORT NUMBER<br>FAILED COMPOMENT MANE                                                                                                       | DIF DATA SOURCE<br>PART NUMBER | VENICLE<br>DATE BIF | 817E<br>71ME 01F | M M M         | VEHICLE SITE PRI VENDOR HAME<br>DATE BIP TIME BIP OTH VENDOR PART NO |          |
| CORRECTIVE ACTI                     | ACTION-NOME.                     |                                                                                                                                                   |                                |                     |                  |               |                                                                      | ***      |
| MYDRAULIC-A/B<br>BOOSTER            |                                  | FTA 442E/PE-301-00-3<br>RELIEF VALVE BOOSTEN HYDRAULIC HIS<br>H PRESSURE                                                                          | ž                              | 3C<br>901817        | <b>.</b>         | 5 B           |                                                                      |          |
| FAILURE HO                          | DE-OUT OF TOLE                   | FAILUME MODE-OUT OF TOLERANCE. VALVE WAS RELIEVING AT 2550 PSI AND REDEATING AT 2100. MONIMAL VALUES 2650 AND 3160.                               | PSI AND REJEATING AT           | T 2100. MG          | MINAL VAL        |               | 150 AND 3160.                                                        |          |
| STSTEN EFFECT-C                     | ECT-OPERATION<br>PRESSURE.       | STSTEM EFFECT-OPERATION TOO LOM. BOOSTER NYDRAULIC PRESSURE ROSE TO 2600 PSI AT MAINSTAGE START, THEN OPERATED AT<br>RYING LOW PRESSURE.          | ROSE TO 2800 PSI AT            | 7 MAINSTAG          | E START.         | ğ             | DPCRATED AT V                                                        |          |
| VEHICLE EFFECT-                     | FECT-NONE.                       |                                                                                                                                                   |                                |                     |                  |               |                                                                      |          |
| CORRECTIVE ACTI                     | ACTION-REPLAC                    | CH-REPLACED RELIEF VALVE.                                                                                                                         |                                |                     |                  |               |                                                                      |          |
| HYDRAULIC-A/B                       | æ                                | FTA4523/P1-203-00-9                                                                                                                               | 24                             | 301067              | =                | ទី ទ          |                                                                      | ••• 7774 |
| FAILURE MOC                         | DE-OUT OF TOLE                   | FAILURE MODE-OUT OF TOLEMANCE. BOOBTER HYDRAULIC PRESSURE WAS APPROXIMATELY 3480 PSIG COMPANED TO SCOOP PSIG NOMINAL                              | AS APPROXIMATELY S4            | 10 P816 CG          | MPARED TO        | 3000          | PSIG NOMINAL                                                         |          |
| SYSTEM EFFECT-NONE.                 | ECT-NONE.                        |                                                                                                                                                   |                                |                     |                  |               |                                                                      |          |
| VEHICLE EFFECT-                     | FECT-NOME.                       |                                                                                                                                                   |                                |                     |                  |               |                                                                      |          |
| CORRECTIVE ACTI                     | ACTION-LAKINDAM.                 | <b>.</b>                                                                                                                                          |                                |                     |                  |               |                                                                      |          |
| HTDRAULIC-A/B<br>BOOSTER            | 9                                | F144311/P1-201-00-0<br>BOOSTER HTDRAULIC PRESSURE BMITCH                                                                                          | Į.                             | 9.0<br>5.01014      | = 0              | 3 0           |                                                                      | ••••     |
| FAILURE MODE-ER<br>S WHEN IT SHOULD | DE-ERRATIC OPE<br>HOULD HAVE REM | RATIC OPERATION. THE BOOSTER INTERNAL NYDRAULIC PRESSURE SMITCH ACTUATED AND DEACTUATED SEVERAL TIME<br>I HAVE REMAINED IN THE ACTUATED POSITION. | LIC PRESSURE SWITCH            | ACTUATED            | AND DEACT        | 2 T. A. T. C. | SEVERAL TINE                                                         |          |
| SYSTEM EFFECT-3                     |                                  | PPROPER DISCRETE BIGHALS. SYSTEM OPERATION WAS NOT PROPERLY SUMMARIZED IN LAUNCH CONTROL LOSIC.                                                   | AS NOT PROPERLY BURN           | WEITED IN           |                  | CONTRO        | . 10610.                                                             |          |
| VEHICLE EFFECT-                     | FECT-NOME.                       |                                                                                                                                                   |                                |                     |                  |               |                                                                      |          |
| CORRECTIVE ACTI                     | ACTION-BWITCH                    | CN-SWITCH REPLACED.                                                                                                                               |                                |                     |                  |               |                                                                      |          |
| HYDRAULIC-A/B<br>BOOBTER            |                                  | F14£5£/P4-£01-00-08<br>PUMP                                                                                                                       | FRF<br>B7-06166-1              | \$08094<br>\$40808  | 10/ETA           | 58            | VES VICKERS<br>NO AA-60664-R-2A                                      |          |

FAILURE MODE-FAIL DURING OPERATION. BOOSTER HYDRAULIC PRESSURE WAS ERRATIC. PLUCTUATING FROM 2109 TO 2100 FSI DUE T O AM AFFARENT FAILURE OF THE BOOSTER HYDRAULIC PUMP.

GUNTAL BYNAMICS CONTAIR DIVISION

9901 NOT 91

| Į | ١ | ١ |
|---|---|---|
|   |   |   |
|   | t | į |
|   |   |   |
|   |   |   |
| • | 4 |   |
| : | i |   |
|   |   |   |
|   |   |   |
|   | i |   |
| i | i |   |
|   |   |   |
|   |   |   |
|   |   |   |
|   |   |   |
| 1 | i |   |
| • |   |   |
|   | į |   |
|   | ì |   |
| i |   |   |
| i |   |   |
| 1 | ۱ |   |
| 1 | į |   |
|   |   |   |
| i | ١ |   |
| i | į |   |
| 1 | ۰ |   |
|   | 2 |   |
|   | Ĺ |   |
| i |   |   |
| i | i |   |
|   |   |   |
|   |   |   |

|                                                                                                    | DIFFICULTIES REVIEW-MYDRAULIC STRTEM-AIRBORNE                                                                                                                                                                                                                                                                                                                                                                                                          | IAULIC STOTEN-AIRBOR                                                                        | <b>y</b>                                |                 |                                                                   | İ                        |        |
|----------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|-----------------------------------------|-----------------|-------------------------------------------------------------------|--------------------------|--------|
| SYSTEM<br>SUB-SYSTEM                                                                               | TESTAEPORT HUMBER<br>PAILED COMPONENT MANE                                                                                                                                                                                                                                                                                                                                                                                                             | DIF DATA BOUNCE<br>PART NUMBER                                                              | VEHICLE<br>DATE DIF                     | 817E<br>1ME 01F | VEHICLE BITE PRI VENDOR NAME DATE BIF TIME BIF OTH VENDOR PART NO | 8                        |        |
| SYSTEM EFFECT-ERRATIC                                                                              | BYSTEN EFFECT-ERRATIC OPERATION, BOOSTER HYDRAULIC PRESSURE FLUCTUATED FROM 8100 TO 3160 PSI.                                                                                                                                                                                                                                                                                                                                                          | FLUCTUATED PROM ES                                                                          | 20 10 8169                              | 981.            |                                                                   |                          | *****  |
| VEHICLE EFFECT-HOME.                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                             |                                         |                 |                                                                   |                          |        |
| CORRECTIVE ACTION-BOD                                                                              | CORRECTIVE ACTION-BOOSTER HYDRAULIC PUMP MAS REPLACED.                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                             |                                         |                 |                                                                   |                          |        |
| HTDRAULIC-A/B<br>BOOSTER                                                                           | EM-1028/ TEST 14-308<br>HTDRAULIC PUMP                                                                                                                                                                                                                                                                                                                                                                                                                 | CAPTIVE<br>27-08561                                                                         | 810004                                  | 1               | YES VICKERS<br>NO AA-60684-R-EA                                   |                          |        |
| FAILURE MODE-FAILED D                                                                              | FAILUKE MODE-FAILED DURING OPCRATION. BOOSTER AIRBORNE NYDRAULIC PUNP APPARENTLY PAILED TO BUILD UP PRESSURE AT EMG<br>INE START AND STSTEM REMAINED ON GROUND PRESSURE THROUGHOUT RUM.                                                                                                                                                                                                                                                                | NAULIC PUMP APPARENT<br>RUN.                                                                | TAILED 1                                | 91100           | UP PRESSURE AT                                                    | ž                        |        |
| SYSTEM EFFECT-OPERATE                                                                              | STRIEM EFFECT-OPERATION DOES NOT START, AIRBORNE PRESSURE TRANSFER NOT ACHIEVED.                                                                                                                                                                                                                                                                                                                                                                       | TRANSFER NOT ACHIEVE                                                                        | ċ                                       |                 |                                                                   |                          |        |
| VEHICLE EFFECT-NONE.                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                             |                                         |                 |                                                                   |                          |        |
| CORRECTIVE ACTION-UNKNOWN.                                                                         | HOMEN.                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                             |                                         |                 |                                                                   |                          |        |
| MYDGAULIC-A/B                                                                                      | ENIO26/1EST 14-307<br>HYDRAULIC PURP                                                                                                                                                                                                                                                                                                                                                                                                                   | CAP11 VE<br>27-09566-1                                                                      | \$19095                                 | 7.              | NO VICKERS<br>NO AA-60884-R-EA                                    |                          | 010669 |
| FAILURE MODE-FAILED D<br>TION, FROM 60 TO 66 SE<br>CE MAD DISTORTED BY A<br>6 IN SLEEVE OF INSTRUM | FAILURE MODE-FAILED DURING OPERATION. NO INDICATIONS OF TRANSITION TO AIRBORNE STRIEM FOR FIRST 60 SECONDS OF OPERA<br>TION. FROM 63 TO 66 SECONDS THE PRESSURE ERRATICALLY ROSE TO 2863 PRIG FOR T. SECONDS. FROM 68 TO 128 SECONDS THE TRA<br>CE MAS DISTORIED BY A 1.13 CPS OSCILLATION WITH AN AMERICE P/P VALUE OF 560 PRIG. PROBABLE CAUSE. A FAULTY NA FITTIN<br>6. IN SLEVE OF INSTRUMENTATION CROSS IN 3/4 INCH HIGH PRESSURE DISCHARGE LINE. | ANSITION TO AIRBORNE<br>2 2843 PSIG FON & SE<br>P/P VALUE OF 560 PSI<br>UME DISCHARGE LINE. | BYSTEM FOR<br>COMDS. FRO<br>6. PROBABLI | FIRST 6         | S SECONDS OF O<br>ES SECONDS THE<br>A FAULTY NS FI                | 76.8.4<br>1.8.4<br>1.8.4 |        |
| SYSTEM EFFECT-DEPLETT<br>COMDS. BY THIS TIME, H<br>, PERNITTING PRESS. PE                          | SYSTEM EFFECT-DEPLETION OF LIGUID SUPPLY. IT APPEARS AIMSONE PUMP PRESSURE INCREASED OWER GROUND LEVEL AFTER SC<br>COMDS. BY THIS THE, HOMEVER, THE LEAK AT THE INSTRUMENTATION BOTTONED OUT THE ACCUMULATOR AND DRAINED THE RESERVOIR,<br>PERHITTING PRESS. HELIUM TO ENTER THE SYSTEM AND CAVITATE THE PUMP.                                                                                                                                         | THE PUMP PRESSURE IN ON BOTTONED OUT THE THE PUMP.                                          | CREASED OW<br>ACCUMULATOR               | AND DRA         | LEVEL AFTER 6<br>INCO THE RESEA                                   | NO. NO.                  |        |
| VEHICLE EFFECT-NONE.                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                             |                                         |                 |                                                                   |                          |        |
| CORRECTIVE ACTION-PUM<br>ON.                                                                       | CORRECTIVE ACTION-PUMP IN QUESTION WAS REPLACED AFTER THE RUN AND DEFECTIVE UNIT METURNED TO SAN DIEGO FOR INSPECTI<br>No.                                                                                                                                                                                                                                                                                                                             | RUN AND DEFECTIVE UN                                                                        | IT ACTURACE                             | TO 54H          | DIEGO POR INSP                                                    | 1133                     |        |
| HTDRAULIC-A/B<br>BOOSTER                                                                           | FTA1100/F1-E04-50-8<br>ACTUATOR FEEDBACK TRANSDUCER                                                                                                                                                                                                                                                                                                                                                                                                    | FRF<br>E7-00830                                                                             | 20 TO 0                                 | 11/678          | ž Q                                                               | <del></del>              | •      |
| FAILURE MODE-FAIL DUR                                                                              | FAILURE MODE-FAIL DURING OPERATION. LOSS OF AUTOFILUT SE PEEDBACK VOLTAGE.                                                                                                                                                                                                                                                                                                                                                                             | EDBACK VOLTAGE.                                                                             |                                         |                 |                                                                   |                          |        |
| SYSTEM EFFECT-IMPROPER ANALOG SIGNALS.                                                             | R AMALOG BIGHALB.                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                             |                                         |                 |                                                                   |                          |        |
| SEMICIE EFFECT-COUNTD                                                                              | TEMICLE EFFECT-COUNTDOWN DELATED. 21 MIN HOLD AND BO MIN RECYCLE LOSD.                                                                                                                                                                                                                                                                                                                                                                                 | ICYCLE LOSS.                                                                                |                                         |                 |                                                                   |                          |        |
| CORRECTIVE ACTION-FRE                                                                              | CORRECTIVE ACTION-FEEDSACE CIRCUIT REPAIRED.                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                             |                                         |                 |                                                                   |                          |        |
|                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                             |                                         |                 |                                                                   | _                        |        |

BEHERAL DYNAMICS CONVAIR DIVISION

18 JUN 1986

\* 42.00 J

|                                                            | DIFFICULTIES REVIEW-HYDRAULIC SYSTEM-AIRBORNE                                                                                                                                                                                                     | IAULIC SYSTEM-AIRBOR                        | ¥                     |                        |                                                                      |                              |                                         |
|------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|-----------------------|------------------------|----------------------------------------------------------------------|------------------------------|-----------------------------------------|
| 3131EM<br>8US-3731EM                                       | TEST/REPORT NUMBER<br>FAILED COMPONENT NAME                                                                                                                                                                                                       | DIF DATA BOUNCE<br>FART NUMBER              | VEMICLE<br>DATE DIF   | 11 T DIF               | VEHICLE BITE PRI VENDOR NAME<br>BATE BIP TIME BIP OTH VENDOR PART NO | VENDOR NAME<br>ENDOR PART NO |                                         |
| HTDRAULIC-A/B<br>BOOSTER                                   | ENGO/18-103-84-14<br>PUMP                                                                                                                                                                                                                         | CAPTIVE                                     | 14A<br>\$60130        | ==                     | 2 Q                                                                  |                              | •                                       |
| FAILURE MODE-CONTAMINAT<br>AND 23 SECONDS, 17 15 BE<br>OR. | FAILURE MODE-CONTANINATION. THREE UMACCOUNTABLE PRESSURE BROPS OCCURRED IN THE BOOSTER HYDRAULIC SYSTEM AT 14: 15:<br>AND 25 SECONDS: IT IS SELIEVED THAT THEY COULD SE CAUSED BY AIR IN THE SYSTEM OR DIRT IN THE AIRSORNE PUMP COMPENSAT<br>OR: | IOPO OCCURRED IN THE<br>AIR IN THE OVOTEN O | BOOSTER !             | ITDRAULIC<br>THE AIRD  | BYBTEN AT<br>CRINE PLIND C                                           | 14. 18.<br>DEPENAAT          |                                         |
| SYSTEM EFFECT-ERRATIC O                                    | SYSIEH EFFECT-ERRATIC OMERATION. THE OMERATION OF THE AIRBORNE BYBTEN WAS BONEWAT ERRATIC ABOUT A MEAN PRESSURE OF<br>2000 PSIG.                                                                                                                  | ANG BYBTER WAS BONE                         | MAT EARA              | 71C ABOUT              | A MEAN PAE                                                           | some of                      |                                         |
| WEHICLE EFFECT-NONE.                                       |                                                                                                                                                                                                                                                   |                                             |                       |                        |                                                                      |                              |                                         |
| CORRECTIVE ACTION-UNKNOWN.                                 | ÷                                                                                                                                                                                                                                                 |                                             |                       |                        |                                                                      |                              |                                         |
| HTDRAULIC-A/B<br>BONSTER                                   | EC-7-091-10A/PE-107-00-10                                                                                                                                                                                                                         | r.ien                                       | 10A<br>\$60110        | 200                    | 22                                                                   |                              | 2                                       |
| FAILURE HODE-OUT OF EXP<br>AN AVERAGE PEAR TO PEAR         | FAILURE MOE-OUT OF EXPECTED TEST VALUE.AIRBORNE MYDRAULIC BYSTEN PRESSURE COCILLATED ATA FREGUENCY OF 4.8 CPS AND<br>An average pear to peak amplitude of 200 PSI. Cause unknown and no apparent correlation with autopilot data.                 | BYSTEN PRESBURE OSC<br>AND NO APPARENT COR  | ILLATED AT            | IA FREGUE<br>EITH AUTO | MCY OF 4.5<br>PILOT DATA.                                            | 9 A A A                      |                                         |
| STRIEM EFFECT-ERRATIC OPERATION.                           | OPERATION.                                                                                                                                                                                                                                        |                                             | •                     |                        |                                                                      |                              |                                         |
| VEHICLE EFFECT-NOME.                                       |                                                                                                                                                                                                                                                   |                                             |                       |                        |                                                                      |                              |                                         |
| CORRECTIVE ACTION-NONE.                                    |                                                                                                                                                                                                                                                   |                                             |                       |                        |                                                                      |                              |                                         |
| HYDRAIL. IC-A/B<br>BODSTER                                 | EM-666/14, 113-D6-0g<br>HTDRAULIC PUMP                                                                                                                                                                                                            | CAPTIVE<br>27-06566-1                       | 2A<br>571006          | 40                     | YES VICKERS                                                          | - 2                          | • • • • • • • • • • • • • • • • • • • • |
| FAILURE HODE-OUT OF TOL                                    | FAILUKE MODE-OUT OF TOLERANCE. HYDRAULIC FLUID TEMPERATURE WAS LOWER THAN THE MORNAL OPERATING RANGE OF 80 TO 180 D<br>LG. F. THE TEMPERATURE WAS SS DES. F. AT TEST START INCREASING TO 110 DEG. F. BY SHUTDOMA.                                 | HAS LONER THAN THE ME TO 118 DEG. F. B      | MORNAL OF             | RATING R               | ANGE OF 80                                                           | TO 180 D                     |                                         |
| SYSTEM EFFECT-LOW TEMPERATURE ENVIRONMENT.                 | ERATURE ENVIRONENT.                                                                                                                                                                                                                               |                                             |                       |                        |                                                                      |                              |                                         |
| VEHICLE EFFECT-NONE.                                       |                                                                                                                                                                                                                                                   |                                             |                       |                        |                                                                      |                              |                                         |
| CORRECTIVE ACTION-NOME.                                    |                                                                                                                                                                                                                                                   |                                             |                       |                        |                                                                      |                              |                                         |
| HYDRAULIC-A/D<br>BOOSTER                                   | EM-668/107-5P1-05<br>HTDRAULIC PUMP                                                                                                                                                                                                               | CAPTIVE<br>27-08586-1                       | 5A<br>570 <b>82</b> 7 | E46/1-1                | VES VICHERS<br>NO AA-6068.                                           | VICKERS<br>AA-60884-R-RA     |                                         |

FAILURE MODE-OUT OF TOLERANCE, BY ACCUMULATOR PRESSURE CURVE FOLLOWED THE MORMAL PATTERN UNTIL E.O SECONDS WHEN IT AGE CAS ABRUPTLY FROM A WOMINAL 3093 PSIG. PRESSURE REMAINED BETWEEN 3300 AND 3400 PSIG UNTIL SHUTDOMN, EXCEPT FOR CICA SIONAL UNACCOUNTABLE TRANSIENT PEARS AS HIGH A 4000 PSIG. IMMEDIATE CAUSE OF HIGH PRESSURE AND TRANSIENT PEARS WAS NOT ESTABLISHED. IT IS BELIEVED TO ALSULT FROM FAULTY OPERATION OF AIRBORNE HYDRALLIC PUMP ON PUMP COMPENSATION.

GENERAL DYNAMICS CONVAIR DIVISION

11 JUN 1986

DIFFICULTIES REVIEW-HIDRAULIC SYSTEM-AIRBORNE

| THE CYTCH-WORLE CTTCH-WORLE.  WHILE CTTCH-WORL  | 8787EH<br>806-8757EH                                 | TESTAEPORT NUMBER<br>FALLED COMPONENT NAME                                                    | DIF DATA SOURCE<br>PART NUMBER                       | WENICLE<br>DATE DIF | 114E 01F OTH | £ 5   | VENDOR HANG<br>VENDOR FART NO |                                                  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|-----------------------------------------------------------------------------------------------|------------------------------------------------------|---------------------|--------------|-------|-------------------------------|--------------------------------------------------|
| CT-NOME.   EN-237/AA.100-04-08                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | STSTEM EFFECT-OPERATION                              | 700 HIS.                                                                                      |                                                      |                     |              |       |                               | ******                                           |
| EN-SITIALIDE DATA  EN-SITIALIDE DATA  EN-SITIALIDE DATA  EN-SITIALIDE DATA  EN-SITIALIDE DATA  EN-SITIALIDE DATA  EN-SITIALIDE DATA  EN-SITIALIDE DATA  COPERATION DES NOT START.  EN-SITIALIDE DATA  EN-SITIALIDE DATA  EN-SITIALIDE DATA  EN-SITIALIDE DATA  EN-SITIALIDE DATA  EN-SITIALIDE DATA  EN-SITIALIDE DATA  EN-SITIALIDE DATA  EN-SITIALIDE DATA  EN-SITIALIDE DATA  EN-SITIALIDE DATA  EN-SITIALIDE DATA  EN-SITIALIDE DATA  EN-SITIALIDE DATA  EN-SITIALIDE DATA  EN-SITIALIDE DATA  EN-SITIALIDE DATA  EN-SITIALIDE DATA  EN-SITIALIDE DATA  EN-SITIALIDE DATA  EN-SITIALIDE DATA  EN-SITIALIDE DATA  EN-SITIALIDE DATA  EN-SITIALIDE DATA  EN-SITIALIDE DATA  EN-SITIALIDE DATA  EN-SITIALIDE DATA  EN-SITIALIDE DATA  EN-SITIALIDE DATA  EN-SITIALIDE DATA  EN-SITIALIDE DATA  EN-SITIALIDE DATA  EN-SITIALIDE DATA  EN-SITIALIDE DATA  EN-SITIALIDE DATA  EN-SITIALIDE DATA  EN-SITIALIDE DATA  EN-SITIALIDE DATA  EN-SITIALIDE DATA  EN-SITIALIDE DATA  EN-SITIALIDE DATA  EN-SITIALIDE DATA  EN-SITIALIDE DATA  EN-SITIALIDE DATA  EN-SITIALIDE DATA  EN-SITIALIDE DATA  EN-SITIALIDE DATA  EN-SITIALIDE DATA  EN-SITIALIDE DATA  EN-SITIALIDE DATA  EN-SITIALIDE DATA  EN-SITIALIDE DATA  EN-SITIALIDE DATA  EN-SITIALIDE DATA  EN-SITIALIDE DATA  EN-SITIALIDE DATA  EN-SITIALIDE DATA  EN-SITIALIDE DATA  EN-SITIALIDE DATA  EN-SITIALIDE DATA  EN-SITIALIDE DATA  EN-SITIALIDE DATA  EN-SITIALIDE DATA  EN-SITIALIDE DATA  EN-SITIALIDE DATA  EN-SITIALIDE DATA  EN-SITIALIDE DATA  EN-SITIALIDE DATA  EN-SITIALIDE DATA  EN-SITIALIDE DATA  EN-SITIALIDE DATA  EN-SITIALIDE DATA  EN-SITIALIDE DATA  EN-SITIALIDE DATA  EN-SITIALIDE DATA  EN-SITIALIDE DATA  EN-SITIALIDE DATA  EN-SITIALIDE DATA  EN-SITIALIDE DATA  EN-SITIALIDE  EN-SITIALIDE  EN-SITIALIDE  EN-SITIALIDE  EN-SITIALIDE  EN-SITIALIDE  EN-SITIALIDE  EN-SITIALIDE  EN-SITIALIDE  EN-SITIALIDE  EN-SITIALIDE  EN-SITIALIDE  EN-SITIALIDE  EN-SITIALIDE  EN-SITIALIDE  EN-SITIALIDE  EN-SITIALIDE  EN-SITIALIDE  EN-SITIALIDE  EN-SITIALIDE  EN-SITIALIDE  EN-SITIALIDE  EN-SITIALIDE  EN-SITIALIDE  EN-SITIALIDE  EN-SITIALID  EN-  | VEHICLE L'FECT-NONE.                                 |                                                                                               |                                                      |                     |              |       |                               |                                                  |
| E-FAIL DURING CPERATION. ATDRAULIC PURP CAVITATED DURING 8 MECONO RUN DUE TO INMUFFICIENT SALELA PRIOR TO CT-OPERATION DOES NOT STAFF.  E-FAIL DURING CPERATION. ATDRAULIC PURP CAVITATED DURING 8 MECONO RUN DUE TO INMUFFICIENT SALELA PRIOR TO CT-OPERATION DOES NOT STAFF.  EC-HOLE.  EL-SALIA-103-DA-02  ET-03586-1  STOROS AFTER THE PREMATURE CUTOF THE PROBABLIC CUTOF THE PROBABLIC CUTOF THE PROBABLIC CUTOF THE PROBABLIC CUTOF THE PROBABLIC CUTOF THE PROBABLIC CUTOF THE PROBABLIC CUTOF THE PROBABLIC CUTOF THE PROBABLIC CUTOF THE PROBABLIC CUTOF THE PROBABLIC CHARACTER SHORD OF SALES AND MALL SHORD SHOWS AT STAFF OF SALES AND MALLES DE DISTORATED TO COPERATION TO LONG.  EC-HOLE.  EC-HOLE.  EC-HOLE.  EL-SAS/A-194-03-02A  EL-SAS/A-194-03-02A  EL-SAS/A-194-03-02A  EL-SAS/A-194-03-02A  EL-SAS/A-194-03-02A  EL-SAS/A-194-03-02A  EL-SAS/A-194-03-02A  EL-SAS/A-194-03-02A  EL-SAS/A-194-03-02A  EL-SAS/A-194-03-02A  EL-SAS/A-194-03-02A  EL-SAS/A-194-03-02A  EL-SAS/A-194-03-02A  EL-SAS/A-194-03-02A  EL-HOLE.  EL-HOLE.  EL-HOLE.  EL-HOLE.  EL-HOLE.  EL-HOLE.  EL-HOLE.  EL-HOLE.  EL-HOLE.  EL-HOLE.  EL-HOLE.  EL-HOLE.  EL-HOLE.  EL-HOLE.  EL-HOLE.  EL-HOLE.  EL-HOLE.  EL-HOLE.  EL-HOLE.  EL-HOLE.  EL-HOLE.  EL-HOLE.  EL-HOLE.  EL-HOLE.  EL-HOLE.  EL-HOLE.  EL-HOLE.  EL-HOLE.  EL-HOLE.  EL-HOLE.  EL-HOLE.  EL-HOLE.  EL-HOLE.  EL-HOLE.  EL-HOLE.  EL-HOLE.  EL-HOLE.  EL-HOLE.  EL-HOLE.  EL-HOLE.  EL-HOLE.  EL-HOLE.  EL-HOLE.  EL-HOLE.  EL-HOLE.  EL-HOLE.  EL-HOLE.  EL-HOLE.  EL-HOLE.  EL-HOLE.  EL-HOLE.  EL-HOLE.  EL-HOLE.  EL-HOLE.  EL-HOLE.  EL-HOLE.  EL-HOLE.  EL-HOLE.  EL-HOLE.  EL-HOLE.  EL-HOLE.  EL-HOLE.  EL-HOLE.  EL-HOLE.  EL-HOLE.  EL-HOLE.  EL-HOLE.  EL-HOLE.  EL-HOLE.  EL-HOLE.  EL-HOLE.  EL-HOLE.  EL-HOLE.  EL-HOLE.  EL-HOLE.  EL-HOLE.  EL-HOLE.  EL-HOLE.  EL-HOLE.  EL-HOLE.  EL-HOLE.  EL-HOLE.  EL-HOLE.  EL-HOLE.  EL-HOLE.  EL-HOLE.  EL-HOLE.  EL-HOLE.  EL-HOLE.  EL-HOLE.  EL-HOLE.  | COMRECTIVE ACTION-UNKNOW                             | ź                                                                                             |                                                      |                     |              |       |                               | — <b>-</b>                                       |
| ETAIL DURING OFERATION, ATDRAULIC PURP CAVITATED DURING 8 MECOND RUN BUE TO INMUFFICIENT BACKS PRIOR TO CO-ERATION DOES NOT BIRAT.  ECT-NONE.  ECT-NONE.  ECT-NONE.  ECT-NONE.  EN-551-A.103-DA-02  EN-551-A.103-DA-02  EN-551-A.103-DA-02  EN-551-A.103-DA-02  EN-551-A.103-DA-02  EN-551-A.103-DA-02  EN-551-A.103-DA-02  EN-551-A.103-DA-02  EN-551-A.103-DA-02  EN-551-A.103-DA-02  EN-551-A.103-DA-02  EN-551-A.103-DA-02  EN-551-A.103-DA-02  EN-551-A.103-DA-02  EN-551-A.103-DA-02  EN-551-A.103-DA-02  EN-551-A.103-DA-02  EN-551-A.103-DA-03  EN-551-A.103-DA-03  EN-551-A.103-DA-03  EN-551-A.103-DA-03  EN-551-A.103-DA-03  EN-551-A.103-DA-03  EN-551-A.103-DA-03  EN-551-A.103-DA-03  EN-551-A.103-DA-03  EN-551-A.103-DA-03  EN-551-A.103-DA-03  EN-551-A.103-DA-03  EN-551-A.103-DA-03  EN-551-A.103-DA-03  EN-551-A.103-DA-03  EN-551-A.103-DA-03  EN-551-A.103-DA-03  EN-551-A.103-DA-03  EN-551-A.103-DA-03  EN-551-A.103-DA-03  EN-551-A.103-DA-03  EN-551-A.103-DA-03  EN-551-A.103-DA-03  EN-551-A.103-DA-03  EN-551-A.103-DA-03  EN-551-A.103-DA-03  EN-551-A.103-DA-03  EN-551-A.103-DA-03  EN-551-A.103-DA-03  EN-551-A.103-DA-03  EN-551-A.103-DA-03  EN-551-A.103-DA-03  EN-551-A.103-DA-03  EN-551-A.103-DA-03  EN-551-A.103-DA-03  EN-551-A.103-DA-03  EN-551-A.103-DA-03  EN-551-A.103-DA-03  EN-551-A.103-DA-03  EN-551-A.103-DA-03  EN-551-A.103-DA-03  EN-551-A.103-DA-03  EN-551-A.103-DA-03  EN-551-A.103-DA-03  EN-551-A.103-DA-03  EN-551-A.103-DA-03  EN-551-A.103-DA-03  EN-551-A.103-DA-03  EN-551-A.103-DA-03  EN-551-A.103-DA-03  EN-551-A.103-DA-03  EN-551-A.103-DA-03  EN-551-A.103-DA-03  EN-551-A.103-DA-03  EN-551-A.103-DA-03  EN-551-A.103-DA-03  EN-551-A.103-DA-03  EN-551-A.103-DA-03  EN-551-A.103-DA-03  EN-551-A.103-DA-03  EN-551-A.103-DA-03  EN-551-A.103-DA-03  EN-551-A.103-DA-03  EN-551-A.103-DA-03  EN-551-A.103-DA-03  EN-551-A.103-DA-03  EN-551-A.103-DA-03  EN-551-A.103-DA-03  EN-551-A.103-DA-03  EN-551-A.103-DA-03  EN-551-A.103-DA-03  EN-551-A.103-DA-03  EN-551-A.103-DA-03  EN-551-A.103-DA-03  EN-551-A.103-DA-03  EN-551-A.103-DA-03  EN-551-A.1  | HTDRAULIC-A/B<br>BOOSTER                             | EH-537/14,106-04-08<br>HTDRAULIC PUMP                                                         | CAPTIVE<br>E7-06568-1                                | 2A<br>87078         | 5            | , č   |                               | 11 27 00                                         |
| CT-OFERATION DOES NOT START.  ECT-NOME.  EN-SAFIA-104-03-02A  ECT-NOME.  EN-SAFIA-104-03-02A  EN-SAFIA-104-03-02A  EN-SAFIA-104-03-02A  EN-SAFIA-104-03-02A  EN-SAFIA-104-03-02A  EN-SAFIA-104-03-02A  EN-SAFIA-104-03-02A  EN-SAFIA-104-03-02A  EN-SAFIA-104-03-02A  EN-SAFIA-104-03-02A  EN-SAFIA-104-03-02A  EN-SAFIA-104-03-02A  EN-SAFIA-104-03-02A  EN-SAFIA-104-03-02A  EN-SAFIA-104-03-02A  EN-SAFIA-104-03-02A  EN-SAFIA-104-03-02A  EN-SAFIA-104-03-02A  EN-SAFIA-104-03-02A  EN-SAFIA-104-03-03A  EN-SAFIA-104-03-03A  EN-SAFIA-104-03-03A  EN-SAFIA-104-03-03A  EN-SAFIA-104-03A  EN-S  |                                                      | OPERATION. HYDRAULIS PURP CA                                                                  | VITATED DURING 8 BECOM                               | ALM BUE TO          | 115          | CIENT | SLELU PRIOR TO                |                                                  |
| ECT-NOIGE.  ECT-STITATION OF STATE THE PRESENTED THE STATE THE PRESENTINE CUTOFF THE HYDRALIC PRESENTINE DID OVERSHELD. IS SECONDS AFTER THE PRESENTINE CUTOFF THE HYDRALIC PRESENTINE DID OVERSHELD. IS SECONDS AFTER THE BELLANDICE THE HYDRALIC PRESENTINE DID OVERSHELD. IS SECONDS AFTER THE BELLANDICE THE HYDRALIC PRESENTE DECAY IS UNA SECONDS AFTER THE DATA WAS THE STATED TO UNK.  ECT-NOIG.  ECT-NOIG.  ACTION-NOIG.  EN-SANTA-194-D3-D2A  BY 12 SECONDS OF RUM AND MELLING PRESSURE WAS ANDMALLY MISH. BETWEEN 18:20 AND SHID. STATES SECONDS OF RUM RETURNED TO NOTAL. 3000 PRIST THEREFTER.  ST 12 SECONDS OF RUM AND MELLING PRESSURE 18:00 PRIST THEREFTER.  ECT-NOIG.  CT-OFERATION TOO HIGH. & HYDRALIC PRESSURE 18:00 PRIST DATA PROTECTS AT BLOTSTARP TO SE SEE F AT 18:3 SEC ECT-NOIG.  E SHALLC, GOING OF SKALE AT 80.8 MEC.  ECT-NOIG.  ECT-NOIG.  ACTION-NOIG. SUBSECURITES NALUES MERE BETWEEN 18:00 PRIST.  ACTION-NOIC.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | SYSTEM FFFECT-OPERATION                              | DOES NOT START.                                                                               |                                                      |                     |              |       |                               |                                                  |
| EN-5571-A-103-DA-02 EN-0556-1 STORES FUND EN-5771-A-103-DA-02 EN-0556-1 STORES FUND EN-5771-A-103-DA-02 EN-0556-1 STORES FUND EN-5771-A-103-DA-02 EN-0556-1 STORES FUND EN-5771-A-103-DA-02 EN-0556-1 EN-056-1 EN-  | VEHICLE EFFECT-NOIS.                                 |                                                                                               |                                                      |                     |              |       |                               |                                                  |
| EN-5571-A.103-D4-02 EP-06366-1 \$70783 NO AA-60884-RA PUMP  EFAILED TO CEASE OPERATION AT PRESCRIBED TIME AT 0.3 RECONDS AFTER THE PREMATURE CUTOFF THE PTDANLIC F RAPIDLY AND VARIED FROM 22-03 TO 3100 PSIG FOR ABOUT B SECONDS AFTER THE PREMATURE CUTOFF THE PTDANLIC F RAPIDLY AND VARIED FROM 22-03 TO 3100 PSIG FOR ABOUT B SECONDS. ALTHOUGH THE BY TUBINE DID OVERSHEED. I SECONDS AFTER SHUTDONS WAS ABOUT 1/2 NORMAL HAIMSTALE BREED. THE LAG IN HYDRALLIC PRESSURE DECAT TO NOR  CT-OPERATION TOO LOMG.  ECT-NOME.  EN-5467/A-194-D3-02A  EN-5467/A-194-D3-02A  EN-5467/A-194-D3-02A  EN-5467/A-194-D3-02A  EN-5467/A-194-D3-02A  EN-5467/A-194-D3-02A  EN-5467/A-194-D3-02A  EN-5467/A-194-D3-02A  EN-5467/A-194-D3-02A  EN-5467/A-194-D3-02A  EN-5467/A-194-D3-02A  EN-5467/A-194-D3-02A  EN-5467/A-194-D3-02A  EN-5467/A-194-D3-02A  EN-5467/A-194-D3-02A  EN-5467/A-194-D3-02A  EN-5467/A-194-D3-02A  EN-5467/A-194-D3-02A  EN-5467/A-194-D3-02A  EN-5467/A-194-D3-02A  EN-5467/A-194-D3-02A  EN-5467/A-194-D3-02A  EN-5467/A-194-D3-02A  EN-5467/A-194-D3-02A  EN-5467/A-194-D3-02A  EN-5467/A-194-D3-02A  EN-5467/A-194-D3-02A  EN-5467/A-194-D3-02A  EN-5467/A-194-D3-02A  EN-5467/A-194-D3-02A  EN-5467/A-194-D3-02A  EN-5467/A-194-D3-02A  EN-5467/A-194-D3-02A  EN-5467/A-194-D3-02A  EN-5467/A-194-D3-02A  EN-5467/A-194-D3-02A  EN-5467/A-194-D3-02A  EN-5467/A-194-D3-02A  EN-5467/A-194-D3-02A  EN-5467/A-194-D3-02A  EN-5467/A-194-D3-02A  EN-5467/A-194-D3-02A  EN-5467/A-194-D3-02A  EN-5467/A-194-D3-02A  EN-5467/A-194-D3-02A  EN-5467/A-194-D3-02A  EN-5467/A-194-D3-02A  EN-5467/A-194-D3-02A  EN-5467/A-194-D3-02A  EN-5467/A-194-D3-02A  EN-5467/A-194-D3-02A  EN-5467/A-194-D3-02A  EN-5467/A-194-D3-02A  EN-5467/A-194-D3-02A  EN-5467/A-194-D3-02A  EN-5467/A-194-D3-02A  EN-5467/A-194-D3-02A  EN-5467/A-194-D3-02A  EN-5467/A-194-D3-02A  EN-5467/A-194-D3-02A  EN-5467/A-194-D3-02A  EN-5467/A-194-D3-02A  EN-5467/A-194-D3-02A  EN-5467/A-194-D3-02A  EN-5467/A-194-D3-02A  EN-5467/A-194-D3-02A  EN-5467/A-194-D3-02A  EN-5467/A-194-D3-02A  EN-5467/A-194-D3-02A  EN-5467/A-194-D3- | CORRECTIVE ACTION-BLEED                              | PRCPERLY.                                                                                     |                                                      |                     |              |       |                               | <del></del>                                      |
| E-FAILED TO CEATE OPERATION AT PRESCRIBED THE AT 0.5 MECONDS AFTER THE PREMATURE CUTOFF THE HYDRAULIC ERAPIDITY AND VARIED FROM EX.A) TO \$100 P316 FOR ABOUT 5 SECONDS. ALTHOUGH THE 81 TUBINE DID OVERSPEED: 1 SECONDS AFTER SHUTDOMN W.S. ABOUT 1/2 MOTHAL HAINSTALL SPEED. THE LAG IN HYDRAULIC PRESSURE DECAT 73 UM.  CT-OPERATION TOO LONG.  EM-346/14-104-03-02A  EM-346/14-104-03-02A  EM-346/14-104-03-02A  EM-346/14-104-03-02A  EM-346/14-104-03-02A  EM-346/14-104-03-02A  EM-346/14-104-03-02A  EM-346/14-104-03-02A  EM-346/14-104-03-02A  EM-346/14-104-03-02A  EM-346/14-104-03-02A  EM-346/14-104-03-02A  EM-346/14-104-03-02A  EM-346/14-104-03-02A  EM-346/14-104-03-02A  EM-346/14-104-03-02A  EM-346/14-104-03-02A  EM-346/14-104-03-02A  EM-346/14-104-03-02A  EM-346/14-104-03-02A  EM-346/14-104-03-02A  EM-346/14-104-03-02A  EM-346/14-104-03-02A  EM-346/14-104-03-02A  EM-346/14-104-03-02A  EM-346/14-104-03-02A  EM-346/14-104-03-02A  EM-346/14-104-03-02A  EM-346/14-104-03-02A  EM-346/14-104-03-02A  EM-346/14-104-03-02A  EM-346/14-104-03-02A  EM-346/14-104-03-02A  EM-346/14-104-03-02A  EM-346/14-104-03-02A  EM-346/14-104-03-02A  EM-346/14-104-03-02A  EM-346/14-104-03-02A  EM-346/14-104-03-02A  EM-346/14-104-03-02A  EM-346/14-104-03-02A  EM-346/14-104-03-02A  EM-346/14-104-03-02A  EM-346/14-104-03-02A  EM-346/14-104-03-02A  EM-346/14-104-03-02A  EM-346/14-104-03-02A  EM-346/14-104-03-02A  EM-346/14-104-03-02A  EM-346/14-104-03-02A  EM-346/14-104-03-02A  EM-346/14-104-03-02A  EM-346/14-104-03-02A  EM-346/14-104-03-02A  EM-346/14-104-03-02A  EM-346/14-104-03-02A  EM-346/14-104-03-02A  EM-346/14-104-03-02A  EM-346/14-104-03-02A  EM-346/14-104-03-02A  EM-346/14-104-03-02A  EM-346/14-104-03-02A  EM-346/14-104-03-02A  EM-346/14-104-03-02A  EM-346/14-104-03-02A  EM-346/14-104-03-02A  EM-346/14-104-03-02A  EM-346/14-104-03-02A  EM-346/14-104-03-02A  EM-346/14-104-03-02A  EM-346/14-104-03-02A  EM-346/14-104-03-03A  EM-346/14-104-03-03A  EM-346/14-104-03-03A  EM-346/14-104-03-03A  EM-346/14-104-03-03A  EM-346/14-104-03-03A  EM-346/14-104- | HYDRAUL I C-A/B<br>BUOSTER                           | EM-5571-A,105-D4-02<br>Puse                                                                   | CAPTIVE<br>27-04586-1                                | 24<br>570725        | <b>4</b> 22  | 33    | VICKERS<br>AA-60694-A-2A      | ***************************************          |
| ECT-MONE.  EM-348/14-104-03-02A  CAPTIVE  EM-348/14-104-03-02A  EM-348/14-104-03-02A  EM-348/14-104-03-02A  EM-348/14-104-03-02A  EM-348/14-104-03-02A  EM-348/14-104-03-02A  EM-348/14-104-03-02A  EM-348/14-104-03-02A  EM-348/14-104-03-02A  EM-348/14-104-03-02A  EM-348/14-104-03-02A  EM-348/14-104-03-02A  EM-348/14-10A    | CCOUNTED FOR. SYSTEM EFFECT-OPERATION                | 700 (046.                                                                                     |                                                      |                     |              |       |                               |                                                  |
| EN-346/14-104-03-02A CAPTIVE EN 1A VES VICKENS B1 PUMP COMPENSATOR E7-3696-1 S70703 0.5 NG AA-60684-F RA E-FAIL DURING CAPERATION. B1 AIRBORNE HYDRAULIC PRESSURE NAS ABNORMALLY MIGHS. DETWERN 38:30 AND 34:00 PB16. CT-CAPRATICN TOO HIGS. 61 HYDRAULIC PURESSURE 28:00 TO 34:00 PB16 DURING FIRST 18 SECONDS OF NUM RETURNED TO PS1G THEREFIES. HYDRAULIC PUMP DISCHAREE TEMP ROSE FROM GO DES F AT DECRETAR TO SS SES F AT 18.5 SEC E ENABTIC. GOING OFF MCALE AT 80:8 SEC. ECT-NOME.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | VEHICLE EFFECT-NOME. CORRECTIVE ACTION-NOME.         |                                                                                               |                                                      |                     |              |       |                               |                                                  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | HYDGAULIC-A/B                                        | EM-346/14-104-03-02A<br>B1 PLMP COMPENSATOR                                                   | CAPT1 VE<br>27-36566-1                               | EA<br>\$7070\$      | ¥ 6          | 59    |                               | •                                                |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | FAILURE MUDE-FAIL DURING<br>FOR THE FIRST 12 SECONDS | . CPEKATION. B1 AIRBORNE HYDRA<br>I CF RUN AND RETURNED TO NORW                               | ULIC PRESSURE WAS ABNOW<br>1. \$000 PSIG THEREAPTER, | HALLT HIGH.         | DETWEEN      | 00 25 | AM. 3400 PBIG.                |                                                  |
| VEHICLE EFFECT-MOME.<br>CORRECTIVE ACTION-MOME, BUBBEBLEMT TEST VALUES MENE BETWEEN BOOD AND BROO PSIS.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                      | TOO HIGH, EJ MYDRAULIC PRESSU<br>FYER, MYDRAULIC PUMP DISCHANG<br>NING OFF SCALE AT EGIS SEC. | ME 3200 TO 3400 P316 DI<br>E TEMP ROSE FROM GO DE!   | MING FIRST          | IR MCOM      | 5 6   | AUM RETURNED T                | ····                                             |
| CORRECTIVE ACTION-MOME, SUBSESSEINT TEST VALUES MENE BETWEEN 3000 AND 3800 PSIS.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | VEHICLE EFFECT-NOME.                                 |                                                                                               |                                                      |                     |              |       |                               |                                                  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | CORRECTIVE ACTION-NONE,                              | SUBSECUTNT TEST VALUES NESE B                                                                 | ETHEEN 3000 AND 3800 P.                              | 118.                |              |       |                               |                                                  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                      |                                                                                               |                                                      |                     |              | Ì     | PAGE 0133                     | <del>,                                    </del> |

CONVAIR DIVISION

15 JUN 1886

| 37.87Ex                                                                                                   |                            | TEST/REPORT NUMBER DIF DATA SOURCE W                                                                                                                                                                        | DIF DATA BOURCE                                                                      | WENTCLE                    | 9116      |                                        | WENDOR MANE                                    | Γ                                     |
|-----------------------------------------------------------------------------------------------------------|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|----------------------------|-----------|----------------------------------------|------------------------------------------------|---------------------------------------|
| 8U6-5Y87LM                                                                                                | 71.10                      | FAILED COMPONENT NAME                                                                                                                                                                                       | PART NUMBER                                                                          |                            | =         | OTH                                    | OTH VENDOR FART NO                             | 2                                     |
| HYDRAULIC-A/B<br>BOOS-ER                                                                                  |                            | EN-435/106CD-4<br>HTDRAULIC PUMPICOMPENBATOR                                                                                                                                                                | CAPTIVE<br>27-0856-1                                                                 | 3A<br>870527               | ī=        | 2 €                                    | VICKERS<br>AA-60686-A-EA                       |                                       |
| FALLURE MODE-F                                                                                            | FAIL BURING                | ALL DURING OPERATION. THE PUMP COMPENSATOR FAILED.                                                                                                                                                          | FAILED.                                                                              |                            |           |                                        |                                                |                                       |
| SYSTEM EFFECT-ERRATIC OPERATION,<br>NO 4020 PSIG. SIMILAR VARIATIONS<br>UT SIGNALS FROM THE SERVO SYSTEM, | SIMILAR VAR<br>H THE SERVO | THE PRESSURE AT THE OCCURRED IN THE PUMP                                                                                                                                                                    | OIL SIDE OF THE BI HYDRAULIC ACCUMULATOR<br>DISCHARGE PRESSURE, THESE VARIATIONS DID | NULIC ACCUM<br>DE VARIATIO | ULATOR V. | 95                                     | VARIED BETHEEN ESED A<br>HOT CORRESPOND TO IMP | <b>~ §</b>                            |
| VEHICLE EFFECT                                                                                            | T-NOM.                     |                                                                                                                                                                                                             |                                                                                      |                            |           |                                        |                                                |                                       |
| CORRECTIVE ACTION-UNKNOWN.                                                                                | TION-UNKNOW                | ź                                                                                                                                                                                                           |                                                                                      |                            |           |                                        |                                                | ··· · · · · · · · · · · · · · · · · · |
| HYDRAULIC-A/B                                                                                             |                            | EN-466/3-1,107-3<br>HTDRAULIC PUMP                                                                                                                                                                          | CAPT; VE<br>27-06566-1                                                               | 5A<br>5705£9               | ī.        | <b>1</b> 0                             | VES VICKERS<br>NO AA-60694-R-EA                |                                       |
| FAILURE MODE-E<br>DRAULIC ACCUMUL                                                                         | ERRATIC OPE                | FAILURE HODE-ERRATIC OPERATION. ABNORMAL D.S CPS PRESSURE OBCILLATIONS OF VARYING MAGNITUDE NERE NOTED ON THE B1 MY<br>Draulic accumulator oil Pressure From 4 to 20 seconds and 48 to 53 seconds.          | E OBCILLATIONS OF VAI<br>46 TO 55 BECOMDS.                                           | TY ING MACAL               | TUDE NESS |                                        | 13 ON THE 81                                   | <b>.</b>                              |
| SYSTEM EFFECT-CHERATION STOPS<br>D SUPPLY PRESSURE TAKING OVER.                                           | -CPERATION<br>URE TAKING   | SYSTEM EFFECT-GPERATION STOPS PREMATURELY, MYDRAULIC POLER TO GINBAL THE THRUST CHANGER WAS LOST RESULTING IN GAOUN<br>SUPPLY PRESSURE TAKING OVER,                                                         | er to singal the than                                                                | MY CHANGER                 | 87        | 3                                      | A.TIME IN SAC                                  |                                       |
| VEHICLE EFFECT                                                                                            | T-NOME.                    |                                                                                                                                                                                                             |                                                                                      |                            |           |                                        |                                                |                                       |
| CORRECTIVE ACTION-UNKHOWN.                                                                                | TION-UNKHON                | ż.                                                                                                                                                                                                          |                                                                                      |                            |           |                                        |                                                |                                       |
| MYDRAULIC-A/B<br>BODSTER                                                                                  |                            | EN-466/9-1,107-3<br>TRANSDUCER                                                                                                                                                                              | CAPTIVE                                                                              | 3A<br>8705£\$              | ī 2       | ₽ Q                                    |                                                | •• 7334                               |
| FAILURE HODE-L                                                                                            | LEAK EXTERN                | FAILUME MODE-LEAK EXTERNAL. A LEAK WAS PRODUCED BY THE HYDRAULIC PUMP DISCHARGE PRESSURE TRANSDUCER COMING LOOSE.                                                                                           | YDRAULIC PUMP DISCHA                                                                 | meegu. 301                 | E TRANSDU | KE                                     | CHING LOOK.                                    |                                       |
| SYSTEM EFFECT-                                                                                            | OFERATION<br>TO THE THR    | SYSTEM EFFECT-OPERATION TOO LOW, LOSS OF PRESSURE AT 53 SECONDS PREVENTED THE AIRSORME NYDRANGIC SYSTEM TO SUPPLY M<br>Drangic Pomer to the thrust changers. Ground Supply Pressure at this time took ower. | SECONDS PREVENTED THE<br>BUIL AT THIS TIME TO                                        | I AIRBORK<br>X OVER.       | HTDRAIL I | ************************************** | EN TO SUPPLY                                   | *                                     |
| WENICLE EFFECT-MOME.                                                                                      | NOK.                       |                                                                                                                                                                                                             |                                                                                      |                            |           |                                        |                                                |                                       |
| CORRECTIVE ACTION-UNKNOWN.                                                                                | FECH-UNKNOW                | •                                                                                                                                                                                                           |                                                                                      |                            |           |                                        |                                                |                                       |
| HYDRAULIC-A/B                                                                                             |                            | En-4665-1,107-3<br>PUMP                                                                                                                                                                                     | CAPTIVE<br>87-06868-1                                                                | 1.<br>17018                | IE        | 88                                     | VICAERS<br>AA-60684-R-2A                       | 1.                                    |
|                                                                                                           |                            |                                                                                                                                                                                                             |                                                                                      |                            |           |                                        |                                                |                                       |

FAILURE MODE-FAILED DURING OPERATION, THE AIRBORNE HYDRAULIC PRESSURE BEING SUPPLIED BY THE GROUND FELL TO IERO PSIS 6 UPON INITIATION OF 61PGAL STEP FUNCTION IN FITCH AND YAM. THE PRESSURE THEN NOME BACK TO 180 PSIS UMERE IT REMAINED POR THE DURATION OF THE TEST.

SENERAL DYNAMICS CONVAIR BIVIBION

|   |                                                                                   | PROBLEM STORES OF STREET, PROPERTY AND TO STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STRE | TENENT STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, | į                     | ;                |            |                                       |      |       |
|---|-----------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|------------------|------------|---------------------------------------|------|-------|
|   | 3731EN<br>816-3731EN                                                              | TEST/REPORT NUMBER<br>FAILED COMPOMENT MANE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | DIF DATA BOURCE<br>PART NUMBER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | VEHICLE<br>DATE DIF   | 111E<br>111E DIF | 07.0       | PRE VENDOR NAME<br>OTH VENDOR PART NO | Ä    |       |
|   | BYBIEN EFFECT-OPENATION TOO LOW.                                                  | N 700 LOM.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                       |                  |            |                                       |      | ***** |
|   | VEHICLE EFFECT-NOME-THE                                                           | VEHICLE EFFECT-MOME-THE LUSS OF HYDRAULIC PRESSURE ALLONED THE THRUST CHAMBERS TO SMINS PREELY.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | ED THE THRUST CHANGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | . TO SMINS            | PREELY.          |            |                                       |      |       |
|   | CORRECTIVE ACTION-UNKNOWN.                                                        | O. P.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                       |                  |            | :                                     |      |       |
|   | HYDGAULIC-A/B                                                                     | EM-384/104-1<br>HYDRAULIC PUMP, COMPENSATOR                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | CAPTIVE<br>E7-00366-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 34<br>9703 <b>6</b> 1 |                  | 5 €        | TES VICKERS<br>NO AA-60684-R-EA       | v2-1 | •     |
|   | FAILURE MOE-FAIL DURIN                                                            | FAILURE MODE-FAIL DURING OPERATION DUE 10 AIR IN LINE OR FAULTY PUSP COMPENSATOR. BISCHARGE PAESSURE DROPPED SELOM<br>2006 PSI BETWEEN S AND 12-5 SEC, PRESSURE FELL AS LOM AS 879 PSI.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | FAULTY PURP COMPENSA<br>870 PSI.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 704. BIBCH            | LAGE PAES        |            | DROPPED B                             | 3    |       |
|   | SYSTEM EFFECT-EMANTIC O                                                           | RATIC OPERATION.AES VEHICLE EFFECT-NOME. GROUND HYDRAULICS FORERED THE HISSILE BETHEEN S AND 18-5 S                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | GROUND HYDRAULICS R                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | MERCO THE             |                  |            | 1 OV \$ N1                            | •    |       |
|   | VEHICLE EFFECT-NONE. 64                                                           | VEHICLE EFFECT-NONE. GROUND HYDRAULICS POMERED THE MISSILE BETWEEN 5 AND 18-5 BEC-                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | LE BETVEEN 5 AND 18.5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | . 100                 |                  |            |                                       |      |       |
|   | CORRECTIVE ACTION-HYDRI                                                           | CORRECTIVE ACTION-HTDRAULIC PLAF INS REPLACED.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                       |                  |            |                                       |      |       |
|   | HTDRAULIC-A/B                                                                     | EN-347/103-1<br>HTDRALL ICPUR                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | CAPTIVE<br>27-08368G1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 34<br>970210          | Ī.               | 8 8        | VICKERS<br>AA-63684-R-EA              | 1-EA | :     |
|   | FAILURE MODE-OUT OF TOLEN<br>EACHED 4000 PSIG AT 1 SEC.                           | OF TOLENAME, AN EMCESSIVE PEAK MAS NOTED IN THE HIDRAULIC PURP DISCHARGE PRESSUME, THE PRESSUME.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | ED IN THE HYDRAULIC !                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | UMP DIBORAL           | HE MESS          | Feet       | THE MESS                              | ¥    |       |
|   | SYSTEM EFFECT-NONE.                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                       |                  |            |                                       |      |       |
|   | MEHICLE EFFECT-NOME.                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                       |                  |            |                                       |      |       |
|   | CORRECTIVE ACTION-UNKHOWN                                                         | Cheb.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                       |                  |            |                                       |      | •     |
|   | HTDRAULIC-A/B<br>BODSIER                                                          | EB-7-067 PART E 1687 518-E<br>SERVO VALVE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | CAPTIVE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 870216                | 1                | <b>2</b> 9 |                                       |      | :     |
|   | FAILURE MOE-FAIL DURIN                                                            | L DURING OPERATION. THE BE BEADO VALVE WAS JAMMED BY A METALLIC CHIP.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | AS JAMED BY A METAL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | ic ceip.              |                  |            |                                       |      |       |
| _ | STRIEN EFFECT-ERRATIC CHERATICH-INPROPE<br>UP IN THE FULL CUIDOAD PITCH POBITION. | STRIEN EFFECT-ERRATIC CHERATION-INPROPER CHERATION OF THE BE PLICH BERNO VALVE CAUGED THE BE THRUST CHAMBER TO HAMS<br>Up in the Full Outpoind Plich Poblition.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | E BE PITCH BERNO VAL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | K CAURED 7            | # 25 #           | 5          | CHANGER TO                            | ***  |       |
|   | WENTELE EFFECT-NONE.                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                       |                  |            |                                       |      | -     |
|   | CORRECTIVE ACTION-REPLACE BE BERND VALVE.                                         | ACE BE BERYD VALVE.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                       |                  |            |                                       |      |       |
|   |                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                       |                  |            |                                       |      |       |

19 10H 1046

| VERNICE   | NO IN IN IN |
|-----------|-------------|
| SENERAL D | CONVAIR     |
|           |             |

|                                                                        | DIFFICULTIES REVIEW-MYDRAULIC STRIEM-AIRBOANE                                                                                                                                                                                                | AAULIC BYBTEN-AIRBO                                        | ¥                                      |                         |       |                                                                      |             |
|------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|----------------------------------------|-------------------------|-------|----------------------------------------------------------------------|-------------|
| 8787EH<br>848-3787EH                                                   | TEST/REPORT NUMBER<br>FAILED COMPONENT NAME                                                                                                                                                                                                  | DIF DATA SOUNCE<br>PART NUMBER                             | VEHICLE<br>DATE BIP                    | 317E<br>71ME 01F        | = ±   | WENTELE BITE PRI VENDOR NAME<br>BATE BIP TIME BIF OTH VENDOR PART NO |             |
| MTDRAULIC-A/B<br>SUSTAINER/VERNIER                                     | RTA4878<br>FLEX MOSE, HTGRAULIC                                                                                                                                                                                                              | UTP-PET<br>E7-06571-9                                      | 116000                                 | <b>3</b> / <b>9</b>     | 5     | 7E8 AEROGUIP<br>677159-6-0203                                        | ***         |
| FAILURE MODE-STRUCTURAL                                                | FAILUME MODE-STRUCTURAL DUE TO MOSE INNER LINER COMING LOOSE PROM END PITTINGS DURING LIPE TEST OF PROCEDUME 1-3066<br>1.                                                                                                                    | 4E FROM END F1771M6                                        | OWING LI                               | 75 F                    | ž     | XEDURE 1-3000                                                        | ~           |
| CORRECTIVE ACTION-REJEC                                                | CORRECTIVE ACTION-REJECTED UNIT FROM TESTING. F.JLUME RESOLUTION NOT COMPLETED.                                                                                                                                                              | LUTION NOT COMPLETE                                        |                                        |                         |       |                                                                      |             |
| HYDRALLIC-A/B<br>Bustainer/Vernier                                     | CT-98-04-284<br>Sustainer actuator assembly                                                                                                                                                                                                  | FAR<br>87-65814-610                                        | 305099<br>9603                         | ĭ                       | ž č   | TES LIGHEL PACIFIC                                                   |             |
| FAILURE MODE-ERRATIC OFERATION OF CRATICAL OF STREMME, CONTROL SIGNAL. | FAILURE MODE-ERRATIC OFERTION, ABSEMBLY BISPLAYED IRREGULAR POSITION-PULIDBACK TRANSBUCER GUTPUT IN RESPONSE TO A 1<br>I CPS SINEMANE CONTROL SIGNAL.                                                                                        | AR POSITION-PEEDBACI                                       | . TRAMBDUCE                            | A OUTPUT                | 2     | SPONSE TO A 1                                                        |             |
| CORRECTIVE ACTION-FIELD<br>CPS, NO CUIPUT TRACE IRR                    | CORRECTIVE ACTION-FIELD TEST PROCEDURES WERE REVISED TO REQUIRE NO PREMENCY RESPONSE TESTS AT PREMENCIES ABONE 6<br>PS, NO OUTPUT TRACE IRREGULARITIES AT 10 CPS WILL OCCUR.                                                                 | OUTRE NO PREQUENCY !                                       | ESPONE TE                              | 578 AT P                | REGUE | KIES ABOVE 6                                                         |             |
| HYDRALLIC-A/B<br>SUSTAINER/VERMIER                                     | 34.V-A9-10-266<br>Tank                                                                                                                                                                                                                       | FAR<br>27-06552-3                                          | 94041E                                 |                         | 88    | BENBON                                                               | 405089      |
| FAILURE MOE-STRUCTURAL<br>AL MTDRAULIC STSTEMS TES                     | FAILURE MOE-STRUCTURAL, TANK MAS RENOVED FROM BLY-3 FUNCTIONAL MOCKUP<br>AL MYDRAULIC SYSTEMS TEST TO DETERMINE THE EFFECTS OF 800 PAIG PRESSURE                                                                                             |                                                            | 4E1D 68-0099) AFT<br>BPINES ON THE BYS | AFTER 17 MAI<br>BYBTEN. | 3     | WID 88-0088) AFTER IT HAD UNDERSONE A SPECI<br>SPIKES ON THE STRIEM. |             |
| CORRECTIVE ACTION-NOT A                                                | CORRECTIVE ACTION-NOT A FAILED ITEM, UNIT MAS PURPOSELY OMERPHESSURIZED, ED/C PERSONNEL WILL USE DATA FROM THIS REP<br>ORT TO ASSIST IN A SPECIAL ENGINEERING INVESTIGATION OF THE EFFECTS OF STRIEN UMEAPRESSURIZATION ON WEHICLE MANDUARE. | EAPLESSUAIZED, 60 /C.                                      | PERSONEL                               | WILL USE                | AT AD | FROM THIS REP<br>HICLE MARCHARE                                      |             |
| HYDRAULTC-A/B<br>BUSTAINER/VERNIER                                     | etauss<br>Plom Limiter-Werneer                                                                                                                                                                                                               | UTP-PET<br>87-04208-8                                      | 946090                                 |                         | 5     | FEB STERER ENG.<br>18000-1                                           | 4000        |
| FAILURE MODE-FAIL DURING 9 THE MONSING, THIS OCCU                      | FAILURE MODE-FAIL DURING OPERATION WITH A RADIAL CRACK ONE<br>B THE HOUSING, THIS OCCURRED AFTER S HRS OF LIFE TESTINS.                                                                                                                      | . GLARTER INCH FROM THE INLET END EXTENDING HALF MAY AROUN | ME JULET E                             | 9 (1)                   | #     | MALF WAY AROUN                                                       |             |
| CORRECTIVE ACTION-NONG                                                 | CORRECTIVE ACTION-MONE SINCE ONLY ONE OF TWO TESTED SHONED THIS PAILURE AND ECP 8448 ACTION REMOVES THIS PART.                                                                                                                               | THIS PAILURE AND EG                                        | 29 8448 ACT                            | ION AEMO                | 3     | 110 PART.                                                            | <del></del> |

GENERAL BYNANICE CONVAIR BIVISION

| i |  |  |
|---|--|--|
|   |  |  |
|   |  |  |
| ) |  |  |
| : |  |  |
| , |  |  |
| , |  |  |
|   |  |  |
|   |  |  |
|   |  |  |
|   |  |  |

9991 NOT 81

|                                                                                  | DIFFICULTIES ALVISH-HYDRAULIC SYSTEM-HIMBORNE                                                                                                                                                                                                                                                           | BRAULIC SYSTEM-AIRBO                                                 | ¥                                       |                                           | Ì      |                                                                   | ſ                                       |
|----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|-----------------------------------------|-------------------------------------------|--------|-------------------------------------------------------------------|-----------------------------------------|
| BYSTEN<br>SUB-SYSTEM                                                             | TESTARFOAT NUMBER<br>FAILED COMPONENT NAME                                                                                                                                                                                                                                                              | DIF DATA SOURCE<br>PART NUMBER                                       | WEHICLE<br>DATE DIF                     | WENICLE SITE PRI<br>DATE DIF TIME DIF OTH |        | VENDOR NAME<br>VENDOR PART NO                                     | <del></del> 1                           |
| HTDRAVE.IC-A/O<br>SUSTAINER/VERNIER                                              | Plom Limiter-Vernier                                                                                                                                                                                                                                                                                    | V19-P£7<br>87-04808-8                                                | 221000                                  | 3/8                                       | 5      | YES STEACH ENG.<br>13000-1                                        | *************************************** |
| PAILURE MODE-OUT OF SPECI<br>T PLUS OR NIMUS B PERENT.                           | OF SPECIFICATION FLOM RATE WAS MEASURED AT 180 PERCENT OF STEADY STATE FLOW COMPARED TO 100 PERCEN<br>Percent.                                                                                                                                                                                          | AT 180 PERCENT OF BT                                                 | 31 A T & T & L                          | FLOW COM                                  | PARCO  | TO 100 PERCEN                                                     |                                         |
| CORRECTIVE ACTION-NOME.                                                          | I. ECP 3442 DELETES THIS PART PROM BERVICE.                                                                                                                                                                                                                                                             | ERVICE.                                                              |                                         |                                           |        |                                                                   | 1                                       |
| HTDRAUL JC-A/B<br>BUSTAINER/VERNIER                                              | 96-90-1-443                                                                                                                                                                                                                                                                                             | PLIGHT                                                               | \$010<br>\$6010\$                       | A84684-1<br>JETT                          | ខ្ទ    |                                                                   | *************************************** |
| FAILURE MODE-SUSTAINER                                                           | USTAINER HYDRAULIC RETURN PRESSURE WAS LOST AT JETTISON. EXACT MANDMANE AND MODE                                                                                                                                                                                                                        | AT JETTIBON. EMCT !                                                  | A JAMONA                                |                                           | T FAIL | OF PAILURE IS UNKNOW                                              |                                         |
| SYSTEM EFFECT-DEPLETIO                                                           | DEFLETION OF LIQUID BUTTLY LOSS OF HYDRAULIC PLUID AND PURP HEAD RESULTED IN CONFLETE LOSS OF HYDRAUL                                                                                                                                                                                                   | IC PLUID AND PUMP HEAL                                               | MENALTO                                 | IN COMP                                   | בוב רכ | MS OF HYDRAUL                                                     | <del></del>                             |
| VEHICLE EFFECT-LOSS OF                                                           | -LOSS OF WENICLE STABILITY.                                                                                                                                                                                                                                                                             |                                                                      |                                         |                                           |        |                                                                   |                                         |
| CORRECTIVE ACTION-A LARGE MANGER OF CORR-016 FOR A CONLETE DESCRIPTION OF THESE. | LANCE HUMBER OF COMBECTIVE ACTIONS MANÉ BEEN TAKEN OR ANG PROPOSED. MEE PLISMT MEPOAT GOC-BAFSS<br>MESCALFILON OF THESE.                                                                                                                                                                                | INE BEEN TAKEN OR AME                                                | PROPOREB.                               | SEE PLIS                                  | H 860  | OAT 60C-BAF88                                                     |                                         |
| HTORALE IC-A/B<br>BUSTAINER/YERNIER                                              | 34.V-99-10-287<br>Prese, 944FT                                                                                                                                                                                                                                                                          | FAR<br>27-06580-8                                                    | 123000                                  |                                           | 0 5    | VICKERS INC.<br>AAGGASO-L-R                                       | 1                                       |
| FAILUME MODE-STAUCTURA                                                           | TRUCTURAL. COUPLING SHAFT BROOK IN HALF AT RELIEF HOTCH BURING PET TEST.                                                                                                                                                                                                                                | RELIEF NOTCH BURING                                                  | KT 1881.                                |                                           |        |                                                                   |                                         |
| CORRECTIVE ACTION-FAIL<br>ISALIGAMENT IN THE 1EST<br>DOR ACTION RECONNEMLED.     | ION-FAILURE CONFIRMED, MATERIAL OF THE BHAFT HET REQUIREMENTS OF VICKERS SPECIFICATION. THERE MAS A M<br>THE TEST EQUIPMENT, COUPLING BHAFT MAS REPLACED AND PURP RERUN THROUGH COMPLETE PET LIFE TEST, NO VEN<br>MYCHOED.                                                                              | T HET REQUIRENENTS OF<br>ACED AND PURP RERUN                         | VICKERB                                 | DECIPICA                                  | 1 19.  | THERE MAS A H<br>E TEST. NO VEN                                   |                                         |
| MYDGAULIC-A/B<br>BUBTAINEQ/VERNIER                                               | TT-A4874<br>Pump BUSTAINER HTD.                                                                                                                                                                                                                                                                         | UTP-PET<br>27-04580-8                                                | *************************************** | 3/0 <b>6</b>                              | 5 9    | YES VICKERS<br>MO AA-60410-L-2                                    | •                                       |
| FAILURE MODE - FAILURE<br>ATE 5 MIN. EACH OF 100<br>1E.5 HAS OF 1EST 15 RE       | FAILUME DUAING OPERATIOM, DURING LIFE TEST THE PUMP SPLINE SMEARED. THE PUMP WAS EXPERIENCING ALTERM<br>OF 100 PERCENT AND 1 MIM 50 PER CENT PLOW, IMLET PRESS, AT 100 PERCENT FLOW WAS ER PSÍA AT 2830 APM,<br>ST IS RESUIRED, 10 MR, BD MIN, MAD ELAPSED AT FAILURE, FAULTY TEST SETUP WAS THE CAUSE. | THE PUMP SPLINE SHE,<br>IMLET PRESS, AT 100<br>AT FAILURE, FAULTY FI | ARED. THE<br>PERCENT F<br>187 BETUP     |                                           | E PSE  | UMS EIPERIENCIMÉ ALTERM<br>ANG ER PSIA AT 2030 RPM.<br>IME CAUSE. |                                         |
| CORRECTIVE ACTION - CHAM                                                         | COMECTIVE ACTION - CHANGE TEST BETUP DRIVER PLANGE TO CONFORM WITH ROODS STANDARD AND THE PROPER INSTALLATION OF                                                                                                                                                                                        | DEFORM WITH EGGGL STA                                                | DARD AND                                | THE PROPE                                 | 1      | 741LATION OF 1                                                    |                                         |

SENERAL DYMANICS

|                                                                |                                                                      | _•                                 |                                                                                                                                                                                                              |                                                                                                                                     |                                    |                                                                                                                                                                                       |                                                                                                                                                                                  |                                   |                                                                                                                                                                     |
|----------------------------------------------------------------|----------------------------------------------------------------------|------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                | VENICLE BITE PRI VENDOR NAME<br>DATE BIP TIME BIP OTH VENDOR PART NO | 786 VICKERS<br>AA-60410-L-2        | K1000P. LEAKAGE                                                                                                                                                                                              | 18 14/84 DESI                                                                                                                       | 768 VICKERS<br>AA-60410-L-8        | INT PLOW MAS B.                                                                                                                                                                       | NE BRECIPICATI                                                                                                                                                                   | TES LIGHEL PACIFIC S              | CENENT POSITION                                                                                                                                                     |
|                                                                | # 0<br># 1                                                           | 2                                  | š                                                                                                                                                                                                            | <b>PA</b>                                                                                                                           | 12                                 |                                                                                                                                                                                       | 1                                                                                                                                                                                | 45                                | Š                                                                                                                                                                   |
|                                                                | 817E<br>710E 01F                                                     | <b>3/96</b>                        | TION, CAU                                                                                                                                                                                                    | fRUCTION.                                                                                                                           | 3/ <b>93</b>                       | 5 5 5 5                                                                                                                                                                               | DOSE APPR                                                                                                                                                                        | y <b>9</b>                        | 19 190                                                                                                                                                              |
| ¥                                                              | VEHICLE<br>DATE DIF                                                  | 3130 <b>96</b>                     | or view.<br>Fliest.                                                                                                                                                                                          | TVPE COM                                                                                                                            | 960209                             | א ניער פינ                                                                                                                                                                            | A A80 PRO                                                                                                                                                                        | \$21090                           | TA 0.10                                                                                                                                                             |
| BIVESION<br>DRAULIC SYSTEM-AIRBORI                             | DIF DATA SOURCE<br>PART NUMBER                                       | U19-PE1<br>R7-06580-3              | AT. DURING THIRD AKID<br>PLUID BUPPLY DURING                                                                                                                                                                 | ET PORT TO OME PIECE                                                                                                                | UTP-PET<br>27-06390-3              | THE IN CAMBING PRO<br>IAT.                                                                                                                                                            | EVALUATE NEW TEST BAT                                                                                                                                                            | UTP-ETT<br>60-65311-1             | L VOLTAGE OF TO MY AT                                                                                                                                               |
| CONVAIR BIVISION DIFFICUATIES REVIEW-HYDRAULIC SYSTEM-AIRBORNE | TEST/REPORT NUMBER<br>PAILED COMPONENT NAME                          | ETA4674<br>Pump MTD., BUSTAINER    | FAILUME MODE-EXTERNAL LEAR, LEAR MAS AT BI-METAL IMLET PORT, DURING THIRD AKIS OF VISGATION, CAUGE UMMOMMY, LEARAGE<br>Rate of 1.5 cc/mr vs nome allomed, insufficient todeplete pluid supply during plismt. | COMECTIVE ACTION-RECOMEND THE REDESIGN OF THE PUMPS INLET PORT TO ONE PIECE TYPE CONSTRUCTION. DURING LY/SLY DESI<br>N REVIEW 1986. | E744674<br>Pusp HTD. BUSTAINER     | FAILUPE MODE-OUT OF SPECIFICATION. THE TRANSIENT RESPONSE TIME IN CHAMBING PROM PULL PLOW TO 10 PERCENT PLOW MAS 0.<br>210 SECONGS. MAXIMUM ALLOMBLE TIME IS 0.20 DECONDS DURING IAT. | CORRECTIVE ACTION-CHAMGE ACCUMULATOR PRECHARGE PREBURE. EVALUATE NEW TEST BATA AND PROPOSE APPROPRIATE SPECIFICATI<br>On revision so that plup response tine will be acceptable. | 6944927<br>Actuator 4387-Vernier  | FAILURE MODE-OUT OF TOLERANCE THE UNIT DEMONSTRATED A MALL VOLTAGE OF 76 MV AT THE 0.100 INCH BISPLACEMENT POSITION<br>AND 76 MV AT MALL. 30 MV OR LESS IS ALLONED. |
| 18 JUN 1966                                                    | SYSTEM<br>SUG-SYSTEM                                                 | MTDRAULIC-A/B<br>Bubtaimen/Vermier | FAILUME MODE-EXTERNAL LEA<br>RATE OF 1.5 CC/MR VS NOME                                                                                                                                                       | CORRECTIVE ACTION-RECOMES                                                                                                           | HYDRAULIC-A/B<br>Bustainer/Vermier | FAILUPE MODE-OUT OF SPECI<br>E2G SECHGS. MAXIMM ALLON                                                                                                                                 | CORRECTIVE ACTION-CHANGE<br>ON REVISION SO THAT PURP R                                                                                                                           | MYDRAULIC-A/B<br>Bustainer/Verier | FAILURE MODE-OUT OF TOLERANCE THE UNIT DENCH<br>AND 76 MV AT MULL. 30 MV OR LESS IS ALLONED.                                                                        |

17000

27604

\*1000

VES CRESCENT MC-65P-4E

2

12101

UTP-PET 87-04208-1

27C4891.1 TRANSOUCER-LINEAR POSITION

HYDRAULIC-A/B Bubtainer/Vermier

FAILURE MOE-OUT OF SPECIFICATION DINEMBIONALLY

CORRECTIVE ACTION-TESTING MAS CONTINUED. PAILURE RESCLUTION NOT COMPLETE.

CORRECTIVE ACTION-SPEC CONTROL DNG UPDATED BY CHANGE DSSODSS-SSI-4 TO INCLUDE ANGLE TOLERANCE OF 45 PLUS OR NIMUS S DEGREES INSTEAD OF 45 DEG PLUS OR MINUS ONE MALF DEGREE.

0000

SEMERAL BYNAHICS CONVAIR BIVISION

\*\*\*\*\*\*\*\*\*\*\*

| 9901 HOP 81                                                                             | DIFFICULTIES REVIEW-HTDRAULIC SYSTEM-AIRBORNE                                                                                                                                                                                                                     | IULIC SYSTEM-AIRBOR                                                                                               | ¥                   |                         |                              |                                                                  |         |
|-----------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|---------------------|-------------------------|------------------------------|------------------------------------------------------------------|---------|
| 875TEH<br>848-878TEH                                                                    | TEST/REPORT NUMBER<br>FAILED COMPONENT NAME                                                                                                                                                                                                                       | DIF DATA BOURCE<br>PART HUMBER                                                                                    | VEHICLE<br>DATE DIF | 817E<br>71ME 01F        | PRI VEND<br>OTH VENDO        | VENDOR NAME<br>VENDOR PART NO                                    |         |
| HTDRALLIC-A/B<br>BUSTAIMEA/VERNIER                                                      | 2)44482<br>V.LVE, RELIEF                                                                                                                                                                                                                                          | UTP-PET<br>E7-06570-1                                                                                             | 011000              | <b>3/9</b>              | YES VINSON<br>A-80133-1      | 33-1                                                             | *****   |
| FAILURE MOE-OUT OF SPEC<br>PROOF CYCLE AFTER TEMP.<br>PSID FLOW RATE.                   | FAILUME MOE-OUT OF SPECIFICATION DUE TO IMPROPER PRESSURE BETTIMG BY WENDOR. BISCREPANCY MAS BISCOVERED DURING THE<br>PROOF CYCLE AFTER TEMP. TEST, THE DIPPERENTIAL PRESSURE OF 108 PSID AND FLOWRATE OF 87 SCFM. ALLOMBLE MAK. IS 100<br>'SID FLOW RATE.        | BETTIMG BY VENDOR, DISCREPANCY WAS DISCOVERED DURING THI<br>108 PSID AND PLOMATE OF 87 SCFM. ALLOMBLE MAX. IS 100 | DISCREPAND          | T WE DES                | COMERED D                    | . 18 100                                                         |         |
| CORRECTIVE ACTION-VENDOR                                                                | M-VENDOR REQUESTED THE RETURN OF ALL UNITS !                                                                                                                                                                                                                      | ALL UNITS FOR RECALISMATION SETTING.                                                                              | £771M6.             |                         |                              |                                                                  |         |
| HYDRAULIC-1/8<br>BUSTAIMER/VERMIER                                                      | ETCASSA.1<br>TAANSDUCER-LINEAR POBITION                                                                                                                                                                                                                           | U1P-PET<br>E7-04204-1                                                                                             | 811096              | 3/ <b>9</b>             | VES CRESCENT<br>MC-106-46    | EN1<br>96                                                        | *****   |
| FAILURE MODE-OUT OF SPEC<br>R MEASURED 0.275 IN. TOL                                    | OF SPECIFICATION DIMENSIONALLY, DURING EQP DIN, N MEASURED G.661 IN, 702, IS 0.79 TO 0.65 IN, DIN, IN, TOL, IS G.276 TO G.265 IN, DIN, AS MEASURED G.203 IN, TOL, IS G.206 TO G.200 IN.                                                                           | DIM. H MEASUAED G.(<br>WMED G.EGS IN. TOL                                                                         | 16 IN. 76           | 7. 18 0.7<br>1 TO 0.208 | 9 70 0.65<br>1#.             | ***************************************                          |         |
| CORRECTLYE ACTION-RECOMEND EN. 40/C EMC. CHANGED DIN. N                                 | CORRECTIVE ACTION-RECOMEND A BUALITY CONTROL INSPECTION OF THE VENDORS MANUFACTURING METHODS AND CORRECT THE PROBLEM. GOLC EME. CHANGED DIM. H TO DISE M WITHIN TOL.                                                                                              | THE VENDORS MANUFAC                                                                                               | CTURING M           | THODS AND               | CORRECT                      | THE PROBL                                                        |         |
| HYJAALIC-A/B<br>BUSTAINEA/YEANIER                                                       | 6944928<br>ACTUATOR ABSY-BUSTAINER                                                                                                                                                                                                                                | UIP-EIT<br>27-05314-017                                                                                           | 111000              | 3/ <b>0</b>             | 7 <b>65 6</b> 0/C            |                                                                  | . 13061 |
| FAILURE MODE-LEAK, EXTERNAL. THE ACTUATOR<br>AKAGE IS ALLONED. REPORTED FAILURE WAS NOT | I, EXTERNAL, THE ACTUATOR ROD SEAL LEAKED TO<br>REPORTED FAILURE WAS NOT CONFIRMED.                                                                                                                                                                               | ROD SEAL LEAKED THREE DROPS AFTER THE THIRD T AKIS VIBRATION SMEEP. NO LE<br>Confirmed.                           | 2<br>2<br>2         | AKIS VIDA               | ATION BAE                    | 5                                                                |         |
| CORRECTIVE ACTION-NOME.                                                                 |                                                                                                                                                                                                                                                                   |                                                                                                                   |                     |                         |                              |                                                                  |         |
| HTDRAULIC-A/B<br>Bustainee/Veanier                                                      | E744706<br>Mydraulic Pilter                                                                                                                                                                                                                                       | UTP-PET<br>E7-06364-8                                                                                             | <b>991814</b>       | CONVAIR                 | VEF MICROPOPOUS<br>NO F-4156 | 90000                                                            |         |
| FAILURE MODE-CONTANIMATI 017. ERRCA FUUMO IN CLEAN O FAILURES TO DATE.                  | FAILURE HODE-COMTANIMATION-THE UNIT FAILED TO MEET THE CLEANLINEAD REGUIREMENT. REF. TABK HIBTORY LOG MUMBER 684-0-<br>117. EARCA FUHD IN CLEANLINEAD TEST PROCEDUME. ADDITIONAL UNITO FROM BANE LOTO BEING TESTED TO MEW PROCEDUME WITH N<br>2 FAILURES TO DATE. | MAINESS REGUIRENENT<br>NITS FROM SAME LOTS                                                                        | . REF. 18.          | M HISTORY<br>M C 1 2 M  | A PROCEDU                    | TASK HISTORY LOS MUNBER 664-0-<br>TESTED TO NEW PROCEDURE MITH N |         |
| CORRECTIVE ACTION-NOME.                                                                 |                                                                                                                                                                                                                                                                   |                                                                                                                   |                     |                         |                              |                                                                  |         |

| 30                    |  |
|-----------------------|--|
| <br>CONVAIR D. VIBION |  |
| COMA                  |  |
|                       |  |
|                       |  |

| 9961 NOT 81                                                                         | CONVAIR BLYISION DIFFICULTIES REVIEW-HYDRAULIC SYSTEM-AIRSORME                                                                                                                                                                                                      | VIBION<br>AULIC BYBTEN-AIRBORI               |                     |                       |                                      |                                       |        |
|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|---------------------|-----------------------|--------------------------------------|---------------------------------------|--------|
| STRTEM<br>SUB-STRTEM                                                                | TEST/REPORT HUMBEN<br>FAILED COMPOMENT NAME                                                                                                                                                                                                                         | DIF DATA BOUNCE<br>PART NUMBER               | WENICLE<br>DATE DIF | 817E                  | VEHICLE SITE PRI VENDOR MANE         | Ä-                                    |        |
| HTDRAULIC-A/B<br>Bustainer/Vernier                                                  | R784501<br>Filtr                                                                                                                                                                                                                                                    | U19-PET<br>27-08564-803                      | 91814               | CONTAIN               | YES MICHOPOROUS<br>NO F-4170         |                                       |        |
| FAILURE MODE-CONTAMING<br>G-016. ERROR FOUND IN<br>NO FAILURES TO DATE.             | FAILURE MODE-CONTAMINATION. THE UNITS FAILED TO MEET THE CLEANLINESS REQUIREMENT, REP. TASK HISTORY LOG MUNSER 864-<br>G-016. ERROR FOUND IN CLEANLINESS TEST PROCEDURE, ADDITIONAL UNITS FROM SAME LOTS BEING TESTED TO MEW PROCEDURE WITH<br>NO FAILURES TO DATE. | EANLINESS REGUIRDIE:<br>. UNITS FROM SAME LO | 17. REP. 1          | ABK H1874<br>E87E6 TO | NEM PROCEDURE                        | * * * * * * * * * * * * * * * * * * * |        |
| CORRECTIVE ACTION-NOME.                                                             | £.                                                                                                                                                                                                                                                                  |                                              |                     |                       |                                      |                                       |        |
| HTDRAUL IC-A/3<br>BUSTAINER/VERNIER                                                 | E744501<br>Filter-Wdraulic                                                                                                                                                                                                                                          | UTP-PET<br>27-06364-803                      | 71218               | 3/ <b>9</b>           | VES MICROPONOUS FI<br>LTER<br>F-4170 |                                       | 98088  |
| FAILURE MODE-OUT OF SE<br>NO THAT OIL SAMPELS TEI<br>CORRECTIVE ACTION-USE          | PAILURE MODE-OUT OF SPECIFICATION TWO TEST SPECIMENS FAILED TO MEET THE CLEARLINESS MESUINEMENTS. INVESTIGATION FOUND THAT OIL SAMPELS TESTED MENE NOT TAKEN PROPERLY.  CORRECTIVE ACTION-USE TEST PROCEDURES PER 0-75080 ON PUTURE TESTS.                          | ) TO NEET THE CLEAN.<br>; TEBTO.             | HESS REN            | Baedento.             | . INVESTIGATION                      | 8                                     |        |
| MYDPAULIC-A/B<br>BUSTAINER/VERMIER                                                  | Z7A4706<br>FILTER-HYDRAULIC                                                                                                                                                                                                                                         | UTP-PET<br>ET-06564-5                        | *1216               | 3/0 <b>3</b>          | MICROPOROUS FI SEGRES LIER F-4156    | 1                                     |        |
| FAILURE MODE-OUT OF SPECIFICATION, THE UNIT AAMPLES TESTED MERE NOT TAKEN PROPERLY. | FAILURE MODE-OUT OF SPECIFICATION. THE UNIT FAILED TO MEET THE CLEANLINESS MEAUSMENDATS. INVESTIGATION FOUND THAT O<br>L SAMPLES TESTED MERE MOT TAKEN PROPERLY.                                                                                                    | THE CLEANLINESS MES                          | STADOTS.            | 1mvEs 7 I.e           | LATION FOUND TH                      | 0                                     |        |
| HYDRAULIC-A/B<br>BUSTAINER/VERNIER                                                  | E7C4536.1<br>TRANSDUCEN-LINEAR POSITION                                                                                                                                                                                                                             | UTP-PET<br>87-04211-1                        | 41807               | 2)3                   | VES CRESCENT<br>NO HC-67P-4E         |                                       | 201040 |
| PAILURE MODE-STRUCTURAL, DURING PRPT<br>N THE CENTER TAP AND THE WINDING END.       | FAILUME MODE-STRUCTURAL. DUMING FIRT X-MAY MEVEALED A CRACK IN THE UNITS POTTING. THE PLOW IS ABOUT MIDPOINT BETWEE<br>I THE CENTER TAP AND THE WINDING END.                                                                                                        | I IN THE UNITE POTT!                         | Ā                   | 5<br>5<br>7           | OUT MIGPOINT BE                      | 3                                     |        |
| CORRECTIVE ACTION-REC                                                               | CONFECTIVE ACTION-RECOMEND R-RAT BURVEILLANCE OF ALL PET UNITS TO ABCERTAINFOTTINS INTEGRITY PRICE TO FINAL ASSENS. T.                                                                                                                                              | MITS TO ABCERTAINFO                          | THE 181             | ¥ 11 %                | OR TO FINAL AL                       | 9 7                                   |        |
|                                                                                     |                                                                                                                                                                                                                                                                     |                                              |                     |                       |                                      | _                                     |        |

GENERAL BYNAMICS CONVAIR BIVISION

18 1UN 1964

|                                                                                         | DIFFICULTIES REVIEW-HYDRAULIC STREM-AIRBORNE                                                                                                                                                                                                                                                                       | TORAULIC STREM-AIRBO                                                                                                                                       | ¥                         |                      |                                       |                  |         |
|-----------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|----------------------|---------------------------------------|------------------|---------|
| 8737EM<br>846-5737EM                                                                    | TEST/REPORT NUMBER<br>FAILED COMPONENT NAME                                                                                                                                                                                                                                                                        | DIF DATA BOUNCE<br>PART NUMBER                                                                                                                             | VEHICLE<br>DATE DIP       | 817E<br>71ME 01F     | PRE VENDOR NAME<br>OTH VENDOR PART NO | MAN A T NO       |         |
| ATDRAULIC-A/B<br>BUSTAINER/VERNIER                                                      | ETA4773<br>VALVE-RELIEF                                                                                                                                                                                                                                                                                            | U19-PET<br>R7-06369-1                                                                                                                                      | 721100                    | D./ <b>99</b>        | 458 BENBON                            |                  | 880088  |
| FAILURE HODE-OUT OF BE ONTED FAILURE MAC MOT                                            | OF SPECIFICATION. BORS PRID RESEATING PRESSURE WAS REPORTED. BISO PRID IS LOWEST ALLOWED. THIS REP<br>Mot confirmed.                                                                                                                                                                                               | KEBLURE UNB REPORTED.                                                                                                                                      | 51 02 15<br>61 04 16      | 18 LOK8              | T ALLONED. TH                         | 25               |         |
| CORRECTIVE ACTIF 4-NO                                                                   | 4-NO ACTION TAKEN SINCE REPORTED FAILURE WAS NOT REPEATED.                                                                                                                                                                                                                                                         | MAS NOT REPEATED.                                                                                                                                          |                           |                      |                                       |                  |         |
| HTDRAULIC-A/B<br>BUSTAINER/VERNIER                                                      | ETA4773<br>VALVE-RELIEF                                                                                                                                                                                                                                                                                            | UTP-FET<br>87-06569-1                                                                                                                                      | 61118                     | )<br>3               | 753 BENBOW<br>92120                   |                  | 184000  |
| FAILURE MODE-LEIR, VALVE LEAKAGE<br>KAGE WAS MITHIN ; CC/MIN ALLOMED.<br>AS 248 CC/MIN. | 0 CA 1 KG                                                                                                                                                                                                                                                                                                          | K AXIS VIB VARIED FROM 36 CC TO 392 CC PER MIN. FOLLOWING THAT AXIS VIB LEA<br>T AXIS VIB LEAKAGE VARIED FROM 36 CC TO 106 CC/MIN. FOLLOWING VIB LEARAGE M | C PER MIN.<br>TO 186 CC/H | FOLLOWIN<br>IN. FOLL | E THAT AXIS V<br>CHINE VIBLEA         | ie LEA<br>KAGE W |         |
| CORRECTIVE ACTIC 1-REV                                                                  | CORRECTIVE ACTIC 1-REVISE TEST SET-UP RE RIM TEST USING HEW TEST SPECINEM.                                                                                                                                                                                                                                         | EN TEST SPECIMEN.                                                                                                                                          |                           |                      |                                       |                  |         |
| HYDRAUL IC-A/B<br>SUSTAINER/VERNIER                                                     | ETAATTS<br>VALVE, MELIEF                                                                                                                                                                                                                                                                                           | UTP-PET<br>27-06569-1                                                                                                                                      | 681109                    | CONVAIR              | 768 BENBON<br>NO BELED                |                  | • 11.7• |
| FAILUKE HODE-CONTANIN<br>HET. LEARAGE AT 3150 F<br>ONG LENGTH OF HEATING                | FAILUKE MODE-COMTAMINATIONS. 87M 509-0836. DUMING THE TENFERATUME TEST THE PARAMETERS FOR RESEAT PRESSUME MERE MOT<br>Het. Learace at 3150 fsig was 1104 cc/min-allomble, 30 cc/min. Probable cause-contamination of mydrallic pluid by l<br>Ong length of Heating coils betheen system filter and test appecimen. | FERATURE TEST THE PA<br>C/MIN. PROBABLE CAUBE<br>I BPECINEN.                                                                                               | -contanina)               | M RESEAT             | PRESSURE NER<br>TRANLIC FLUI          | 2 .              |         |
| CORRECTIVE ACTION-NOVE                                                                  | E 1EST SETUP FILTER CLOSE TO SPECINEN AND RERUN THAT PORTION OF                                                                                                                                                                                                                                                    | EN AND RERUN THAT POR                                                                                                                                      | 1100 OF 1881.             | 1.                   |                                       |                  |         |
| HYDRAULIC-A/B<br>BUBTAINER/VERNIER                                                      | ETAATT3<br>VALVE-MELIUF                                                                                                                                                                                                                                                                                            | UTP- PET<br>ET-06569-1                                                                                                                                     | 691103                    | )<br>3               | VES BENBON                            |                  | 98 800  |
| FAILUME MODE-INTERNAL<br>TOL 18 LESS THAN 30 CC                                         | FAILUAE MODE-INTERNAL LEAK. DURINGTEMP TEST MAILE PAESSURIZED AT 3150 PSIG THE LEAKAGE MEADURED 11 DA CC/MIM, MAK.<br>OL 15 LESS THAN 30 CC/MIM. CONTAMINATION MAS THE CAUGE.                                                                                                                                      | 112ED AT 3150 PSIG TH                                                                                                                                      | C LEARABE "               | Executo              | 11 <b>B6</b> CC/H1H,                  | i                |         |
| COARECTIVE ACTION-REV                                                                   | CORRECTIVE ACTION-REVISE TEST SET-UP AND CONTINUE TESTING.                                                                                                                                                                                                                                                         | 4                                                                                                                                                          |                           |                      |                                       |                  |         |
|                                                                                         |                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                            |                           |                      |                                       | _                |         |

GENERAL DYNAMICS CONVAIR DIVISION

18 JUN 1966

|                                                                                                           | DIFFICULTIES REVIEW-HYDRAULIC SYSTEM-AIRSORME                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | W.IC SYSTEM-AIRBORN                                                 | *                                     |                                                  |                           |                                                                      |               |
|-----------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|---------------------------------------|--------------------------------------------------|---------------------------|----------------------------------------------------------------------|---------------|
| <br>SYSTEM<br>BUB-SYSTEM                                                                                  | TEST/REPORT NUMBER<br>FAILED COMPONENT NAME                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | DIF DATA SOURCE<br>PART NUMBER                                      | WENICLE<br>DATE DIF                   | 817E                                             | 1 E C                     | WENICLE BITE PRI VENDOR NAME<br>DATE BIF TINE BIF OTH VENDOR PART NO |               |
| <br>mtdraul IC-A/B<br>Bustainer/Vernier                                                                   | ETC-4535.1<br>TRANSDUCER-LINEAR POSITION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | UTP-PET<br>27-04208-1                                               | 920199                                | 7 3/8                                            | 2 3 X                     | CRESCENT<br>HC-65P-4E                                                | •••           |
| FAILURE MODE-OUT OF SPEC<br>MOULD MOT ADVERSELY AFFEI                                                     | FAILUME MODE-OUT OF SPECIFICATION, DIMENSIONALLY. A ROUND CORNER ON THE PROBESHAFT CREATED A MIMOR OUT OF TOL. MAICH<br>WOULD NOT ADVERSFLY AFFECT THE STRIEM FUNCTION. THE REPORTED CONDITION IS ACCEPTABLE TO EMSIMERIMS.                                                                                                                                                                                                                                                                                                  | HER ON THE PROBESHA<br>CONDITION IS ACCEP                           | FT CREATE                             | N N NINOR                                        | . g                       | F TOL. MASCA                                                         |               |
| <br>CORRECTIVE ACTION-VENDOR<br>ED 431112.                                                                | ION-VENDOR MASREALESTED TO CONFORM TO DIMENSIONAL REQUIREMENTARS PER SCD 27-04209 BY WEAR 7987-65 DAT                                                                                                                                                                                                                                                                                                                                                                                                                        | MAL REQUIREMENTSAS                                                  | PER BCD B                             | 7-04205 61                                       | , WCAR                    | 7967-65 DAT                                                          |               |
| HTDRAULIC—A/B<br>Bustainer/Vermier                                                                        | SLV-89-04-9084-P<br>Feedrak Transducer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | FAR<br>E7-04E11-1                                                   | 61019                                 | FACTORY                                          | 2 G<br>2 G                | YES CRESCENT EMS.<br>NO MC-67P-4E                                    | <b>676087</b> |
| FAILURE MODE-OUT OF SPEC<br>-04217 IS 0.050 VOLT, PRO<br>METIC PROPERTIES OF PROBE                        | FAILUME HODE-OUT OF SPECIFICATION, MULL VOLTAGE OF BUBJECT TRANSDUCER HAS D.085 WOLT. MAXIMUM ALLOMBLE PER SPEC EP<br>-04217 IS 0.030 VOLT. PROBLEM CAUSED BY ABHORMALLY HIGH SUSCEPTIBILITY OF TRANSDUCER PROBE TO BECOME MAGNETIZED, MAG<br>HETIC PROPERTIES OF PROBE CHANGED AS RESULT OF USING INCOMPLETELY STABILIZED PRUBE MATERIAL.                                                                                                                                                                                   | TRANSDUCER WAS 0.009<br>PTIBLLITY OF TRANSD<br>TTELY STABILIZED PRO | I VOLT. NA<br>DUCER PROB<br>DE NATERI | KINUM ALLO<br>E TO BECOI<br>AL.                  | STEEL E                   | PER SPEC BY<br>HETIZED. MAG                                          |               |
| <br>CORRECTIVE ACTION-CRESCE<br>9 MATERIAL TRANSDUCER PRO                                                 | CORRECTIVE ACTION-CRESCENT ENGINEERING REQUESTED TO REVISE HEAT TREATING PROCEDURE OF CARPENDER HIGH-PERHEABILITY 4<br>9 MATERIAL TRANSDUCER PROBES TO ASSURE MATERIAL IS IN MANETICALLY STABLE CONDITION.                                                                                                                                                                                                                                                                                                                   | MEAT TREATHME PROCED                                                | OURE OF CA                            | RPENDER H                                        | 3                         | RHEABILITY 4                                                         |               |
| HTDRAULIC-A/B<br>SUSTAINER/YERNIER                                                                        | 3LV-98-04-5070-F<br>ACTUATOR ASSEMBLY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | FAR<br>27-65314-617                                                 | 11016                                 | £7.8                                             | 50                        | VES LIGHEL PACIFIC<br>NO                                             | 1000          |
| <br>FAILURE MOE-CONTANIMATI I APPEAREN TO DE SHREDDED HE ACTUATOR ASST. WOST LI R BODT FOR HYDRAULIC LINE | FAILUKE MOE-CONTAHIMATION. "YORAULIC SYSTEM RETURN PORT PLUG MAS REMOYED AND MAS FOUND TO SE CONTAHIMATED MITH MAS IN THE PROPER SON THE PORT PLUG MAS NOT FROM MITHIN THE APPEARENT TO BE SHREDDED O-RING MATERIAL. THE SOURCE OF THE O-RING PARTICLES ON THE PORT PLUG MAS NOT FROM MITHIN THE ACTUATOR ASSY, "YOST LIKELY SOURCE MOALD SET HE O-RING SEAL USED WENT THE AM-FITTING WAS THREADED INTO THE ACTUATOR ASSY, "YOST LIKE COMECTION, SINCE THESE COMPONENTS WERE NOT WITH THE ASSY, NO EVALUATION COMED SE MADE. | F WAS REMOYED AND NO O-RING PARTICLES ON USED WEN THE AN-           | 48 FOUND<br>17 THE PORT<br>17 THE 48  | TO BE CON<br>PLUE MAS<br>B THREADEI<br>VALUATION | TANTING<br>HOT P<br>COULD | TED MITH MAN<br>ROW MITHIN T<br>THE ACTUATO<br>BE MADE.              |               |
| <br>CORRECTIVE ACTION-NOME.                                                                               | SOURCE OF CONTAMINATION WAS NOT FOUND.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <b>.</b>                                                            |                                       |                                                  |                           |                                                                      |               |
| MTDRAULIC-A/B<br>Bubtainer/Vermier                                                                        | 60C/BKF63-048/83-401-00-54<br>CMECK VALVE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | FLIGHT<br>27-06560-5                                                | 340                                   | 8-3/VIR<br>810                                   | 768 KG<br>80 KG<br>11 KG  | ROHLER<br>ROHLER CO.<br>R-1427-6                                     |               |
| FAILURE MODE-LEAK, CHECK VALVE LEAKED IN RE<br>NER HYDRAULIC SYSTEN AFTER SUSTAINER CUTOFF,               | R 1247-6<br>Er htoraulic striem after burtainer cutopp.                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | allowing Verhier Hyl                                                | DRAWLIC PI                            | Essure to                                        |                           | K 1847-4<br>Ed into sustai                                           |               |

BYSTEM EFFECT-OPERATION TOO BHONT. WAS ACTION OF YERHIER HYDRAULIC BYSTEM WAS BHONTENED WITH WAS BOTTOMING OUT B.S SECONDS AFTER VECO. EMPECTED WAS ACTION BHOULD BE OF LOWER DURATION.

WEMICLE EFFECT-NOME.

GENERAL BYNANICS CONVAIR BIVIBION

11 244 1986

|                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | PART MUMBER                                                                                                                                            | DATE DIF                                         | DATE DIF TIME DIF OTH                 |                                        | WENDOR PART NO                 |             |
|------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|---------------------------------------|----------------------------------------|--------------------------------|-------------|
| CORRECTIVE ACTION-NOME. I                                                                                                                      | NO IMMEDIATE CORRECTIVE ACTION PLANMED. LONG-RAINGE CORRECTIVE ACTION INCLUDES INCREASING CA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | AMED. LONG-RANGE CON                                                                                                                                   | AECTIVE AC                                       | 110H 1MCL                             | VOES INCAL                             | [A81 HE CA                     | •           |
| SILDRAULIC-A/B                                                                                                                                 | A-88-04-5088-P<br>ACTUATOR ASSEMBLY, SERVO VALVE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | PAR<br>27-65514-021                                                                                                                                    | 151-F<br>650908                                  | FACTORY                               | YES LICHEL PACIFIC                     | PACIFIC                        | 1           |
| FAIL TE PODE-CONTANIMATIC<br>LINIT, "4E EKCESSIVE MALL<br>POCL, CON VINANTS FOUND I                                                            | FAIL TE PODE-CONTAHINATION-INACTIVE MULL REPORTEDLY MEASURED PLUS 0.48 VOLT, EXCEEDING PLUS 0.40 VOLT, THE MAXIMUM<br>Lihit. "4e excessive mull compition was caused by contahinants increasing priction of the power-stage plom control (<br>Pocl. Co. Vimants Foard were metallic and magnetic. They were probably machining or gainding residue.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | MED PLUS 0.46 VOLT, E<br>MANTS INCREASING PRICE<br>MERE PROBABLY MACHINI                                                                               | XCEEDING P                                       | LUS 0.40  <br>POMER-ST.<br>DING RESIE | WOLT, THE<br>NEF FLOW (<br>DUE.        | MANINUM                        |             |
| COKRECTIVE ACTION-CADILLAC GAGE MAS REGUESTED SERVONALVES ARE ASSEMBLED FREE OF CONTANIMANIS.                                                  | AC GAGE MAS REQUESTED TO IMPROVE<br>FREE OF CONTAMINANTS.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | TO INPROVE CLEANING AND ASSEMBLY PROCEDURES AND TECHNIQUES TO ASSURE                                                                                   | · PROCEDURE                                      | S AND TECH                            | MI BUES TO                             | ASSURE                         |             |
| HTDRAULIC-A/B<br>BUSTAINE G/VERNIER                                                                                                            | 3LV-99-04-5067-P<br>3ERVOVALVE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | FAR<br>27-04208-1                                                                                                                                      | 450807                                           | FACTORY                               | YES CADILLAC                           | AC 646E                        | :           |
| FAILURE MODE-STRUCTURAL. TO THE SPICOL OF SERVOVALW PET TEST. DANAGE TO THE SPOOL OF HARDRESS OF THE SPOOL OF                                  | UCTURAL. TUO SERVOVALVES MERE REJECTED FOR LOW STANDBY PRESSURE. S/N 109-0608 AND 209-0838. DAMMGE ERVOVALVE S/N 109-0609 AND EAUSED BY BROACHING OPERATION BURRY BEING FREED DURING VIBRATION DURING TO THE SPOOL OF SERVOVALVE S/NROB-0438 MAS CAUSED BY A CONTABINANT OF UNKNOWN BOURCE HOMEVER, THE LE SPOOL LAND SURFACE MAGNIFIED THE DAMMGE CAUSED BY THE CONTABINANT.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | DE LOM STANDSY PRESSURINGHING OPERATION BURREL<br>18 CAUSED BY A CONTAMI<br>1 CAUSED BY THE CONTAMI                                                    | IE. S/N 109<br>SEING PRE<br>NANT OF UN<br>IDANT. | -0608 AND<br>ED DURING<br>KNOMN BOUR  | 209-0636.<br>VIBRATION                 | DAMAGE<br>CONTING<br>CR. THE L |             |
| CORECTIVE ACTION-6D/C INITIATED THE FOLLOWING TED. PARTICULARLY NOTING THE SLEEVE FORT RADIL. 1D LOCALIZED GAINDING HEAT FROM SOFTENING SPOOL. |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | WINDOR CORRECTIVE ACTION. IMPRECTION PROCEDURES DE PROPERLY IMPLEMEN<br>GRINDING ANG HONING OPERATIONS BROULD DE CARÉFULLY CONTROLLED TO AVO<br>LANDS. | CTION PROC<br>BHOULD BE                          | CANCFULLY                             | PROPERLY INFLEMEN<br>CONTROLLED TO AVO | INFLEMEN<br>ID TO AVO          | <del></del> |
| HYDRAUL IC-A/B<br>Sustaineq/Yeamier                                                                                                            | ETA47ET<br>SUSTAINER BERVO VALVE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | UTP-PET<br>27-04208-1                                                                                                                                  | 060030                                           | FACTORY                               | VES CADILLAC GA                        | CADILLAC GAGE<br>FC-E7-388A    | •           |
| FAILURE MODE-OUT OF TOLE!<br>6 (SPEC. 18 1000 PSIG WIN.<br>ACTUATOR STANDBY PRESSU                                                             | CF TOLERANCE DURING PET POST VIBRATION PROOF CYCLE, THE CYLINDER PORT BTANDRY PRESSURE NAS 600 PSI<br>1916 Hininum), Bimilar Pailume Occumbed on 650010 During Pet Plus Bo degrees Pluid Tenferature Test<br>1 pressure nas 825 Psi6,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | PROOF CYCLE, THE CYLIN<br>TH 650818 DURING PET 1                                                                                                       | DER PORT 1<br>1-145 30 DES                       | TANDBY PRI                            | ESSURE WAS<br>D TEMPERA                | 1 000 PS                       |             |
| COANECTIVE ACTION-PERFORI<br>E ACTION OPEN.                                                                                                    | COARECTIVE ACTION-PEAFORM METALLURGICAL TESTS. PREL "THARP INVESTIGATION REVEALS CHIPPING OF SPOOL EDGES. CORRECTIV<br>ACTION OPEN.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | N INVESTIGATION REVEL                                                                                                                                  | ILB CHIPPIN                                      | 50 e                                  | 1863.                                  | CORRECTIV                      |             |
| HYDRAULIC-A/B<br>BUBTAINER/VERNIER                                                                                                             | SLV-SD-04-5060-F<br>ACTUATOR VERNIER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 7 A A 60 - 65 8 1 5 - 5                                                                                                                                | •••••                                            | 5                                     | OH CTORE                               | LIONEL PACIFIC                 |             |
|                                                                                                                                                | THEOLEM CHY SERVED TO THE RESTO CHARLE THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE STREET OF THE S | 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1                                                                                                                  | . w                                              | 2                                     |                                        | 1                              |             |

GENERAL DYNAMICS

| DIVIBION         |  |
|------------------|--|
| CONVAIR DIVIBION |  |
|                  |  |

|                                                                                                                                    | DIFFICULTIES REVIEW-HYDRAULIC SYSTEM-AIRSCAME                                                                                                                                                                                                                                                                                                                                                          | NULIC SYSTEM-AIRBOT                                                 | ¥                                     |                             |            |                                                                     |          |
|------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|---------------------------------------|-----------------------------|------------|---------------------------------------------------------------------|----------|
| 8781EH<br>848-8781EH                                                                                                               | TESTAEPORT NUMBER<br>FAILED COMPONENT NAME                                                                                                                                                                                                                                                                                                                                                             | DIF DATA BOUNCE<br>PART NUMBER                                      | VEHICLE<br>DATE DIF                   | 11 ME 117                   | 25         | WHICLE SITE PRI VENDOR MANE<br>DATE BIF TIME BIF OTH VENDOR PART NO |          |
| 6 TO THE BERVOYALVE CENTER TO<br>RT REPORT MAS NOT CONFIRMED.                                                                      | 6 TO THE BENVOYALVE CENTER TAP MAS GROUNDED. NO ACTUATOR ASSENDLY OPERATING DEFICIENCY WAS FOUND. THE ELECTRICAL SHO<br>RT REPORT WAS NOT CONFIRMED.                                                                                                                                                                                                                                                   | EMBLY OPERATING BEF                                                 | icities in                            | • Four                      | ¥          | LECTRICAL 2000                                                      |          |
| COMPECTIVE ACTION-FAILURE AMALYSIS MAS PERI<br>AMALYSIS IS DISCUSSED IN FAR SLV-80-14-240.                                         | CORRECTIVE ACTION-FAILURE AMALYSIS WAS PERFORMED ON THE MARMESS COMMEC!ING TO THIS ACTUATOR ASSEMBLY. THAT PAILURE<br>Malysis is discussed in far sly-sd-14-840.                                                                                                                                                                                                                                       | HESS COMEC:1145 TO                                                  | THIS ACTUR                            | TOR ABBE                    | BLY.       | THAT PAILURE                                                        | <b>1</b> |
| MYD4AULIC-A/B<br>SUSTAINER/VERNIER                                                                                                 | BLV-8D-04-5080<br>BERVO ACTUATOR                                                                                                                                                                                                                                                                                                                                                                       | FAR<br>60-05311-1                                                   | 7110                                  | Ĕ                           | 5 B        | WE LICHEL PACIFIC \$39788                                           | \$ 10 T  |
| FAILURE MODE-ERRATIC OPE<br>FAR SLV-80-14-240.                                                                                     | FAILURE MODE-ERRATIC OPERATION- UNIT REJECTED FOR GOING MARD OWER IN YAW. FAILURE COALD NOT BE CONFIRMED. ALSO BEE<br>'AR SLV-80-14-240.                                                                                                                                                                                                                                                               | ED OVER IN YAW. PAIL                                                | UNE COULD                             | 101<br>101<br>0             | 00 IR      | ED. ALSO SEE                                                        |          |
| CORRECTIVE ACTION-FAILURE NOT CONFINED.                                                                                            | IE NOT CONFINED.                                                                                                                                                                                                                                                                                                                                                                                       |                                                                     |                                       |                             |            |                                                                     |          |
| Hydraul IC-4/8<br>Sustrimer/Vernier                                                                                                | SLV-99-04-5037-F<br>VERHIER SERVO VALVE                                                                                                                                                                                                                                                                                                                                                                | FAR<br>27-04209-1                                                   | 620059                                | FACTORY                     | <b>1</b> 0 | YES CADILLAC GAGE<br>NO FCE6-397A                                   | ***      |
| FAILURE HODE-OUT OF SPECIFICATII NT SHIFTED TO PLUS D.ET WA AFTER PERE. MAXIMUM ALLOMBLE MULL CUR D NOT DE DEFINITELY «STABLISHED» | FAILURE MOE-OUT OF SPECIFICATION-DURING PERFORMANCE OF PET TEST TP-1-3970-1, PARAGRAPH 4.7.6, THE VALVE MULL CURRE<br>NT SHIFTED TO PLUS D.27 MA AFTER BOD.000 CYCLES, AND AT 1350000 CYCLES THE MULL CURRENT SHIFTED TO PLUS G.31 MILLIAN<br>PERE: MAXIMUM ALLOMABLE MULL CURRENT IS PLUS OR MIMMS D.20 MILLIANPERE. THE CAUSE FOR THE SERVOYALVE MULL SHIFT COUL<br>D NOT DE DEFINITELY ESTABLISHED. | 7 TEST 19-1-3978-1,<br>2000 CYCLES THE MULL<br>HILLIAMPENE, THE CAU | PARAGRAPH<br>CURRENT S<br>SE FOR THE  | 6.7.6. THE TEE THE SERVOVAL |            | VE MAL CURRE<br>1 G.31 MILLIAN<br>AL SMIFT COM.                     |          |
| CORRECTIVE ACTION-6D/C O                                                                                                           | CORRECTIVE ACTION-60/C OBTAINED DEBIGN CORRECTIVE ACTION IN ECP 344E.                                                                                                                                                                                                                                                                                                                                  | • ECP 344£.                                                         |                                       |                             |            |                                                                     |          |
| HTDRAULIC-A/B<br>SUSTAINER/VERNIER                                                                                                 | etaaaos<br>Verhier beavo valve                                                                                                                                                                                                                                                                                                                                                                         | UTP-PET<br>E7-04E09-1                                               | 130050                                | 3/ <b>9</b>                 | ž š        | 7ES CADILLAC GAGE<br>NO CO<br>FC28-397A                             | *****    |
| FAILURE MODE-OUT OF TOLE 27 MA. THE MAKIMUM PERMIT ED BY IMPROPER TEMPERATUR                                                       | FAILURE MODE-OUT OF TOLERANCE-DURING FORT 900,000 CYCLE LIFE PROOF CYCLE. THE MALL CURRENT WAS NEASURED AS PLUSO D.<br>27 Mai the Maximum Permitted is digoma. After 1,850,000 Cycles recorded on end smift on 490821 was plus bisima. Caus<br>Ed by improper temperature asimé un arm léver mear. These are possible major contributors.                                                              | TE PROOF CYCLE. THE<br>LB RECORDED ON END<br>TE POSSIBLE MAJOR CO   | MAL CURRE<br>SMIFT ON 6<br>NTRIBUTORS | 10 the m                    | 3 2        | 10 AS PLUSO 0.                                                      | •        |
| CORRECTIVE ACTION-PAILUR                                                                                                           | CORRECTIVE ACTION-FAILURE ANALYBIB MEEDED TO DETERMINE CONDITION OF ARM AND LEWER ABBENGLY. REF-CTCTM MAMBER \$\$1-2-<br>183.                                                                                                                                                                                                                                                                          | ITTON OF ARM AND LE                                                 | VER ABBEND                            | LY. REF-                    | CTCTM      | -2-165 H300M                                                        |          |

CONVAIR DIVIBION

| ŧ |  |  |  |
|---|--|--|--|
| : |  |  |  |
|   |  |  |  |
|   |  |  |  |
|   |  |  |  |
| ì |  |  |  |
|   |  |  |  |
|   |  |  |  |
|   |  |  |  |
|   |  |  |  |
|   |  |  |  |
|   |  |  |  |
|   |  |  |  |
|   |  |  |  |

|                                                    | DIFFICULTIES REVIEW-HTDRAULIC STRTEM-AIRBORNE                                                                                                                                                                                          | RAULIC SYSTEM-AIRBON                           | ¥                   |                      |                                      |          |
|----------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|---------------------|----------------------|--------------------------------------|----------|
| 373[EN<br>300-373[EN                               | TESTARFOAT HUNGER FAILED COMPONENT HANG                                                                                                                                                                                                | DIF DATA BOUNCE<br>PART NUMBER                 | VEHICLE<br>DATE DIF | 11.0 MIT             | VEHICLE BITE PRI VENDOR MANE         |          |
| MTDRAULIC-A/B<br>BUSTAINER/VERNIER                 | 6D/C22HGS-026-DA1GS?-/LA-7MO-G2-71 COMPOSITE-FRD/BPL                                                                                                                                                                                   | S COMPOSITE-PRD/BPL                            | 7111                | I                    | 7E                                   | ••••     |
| FAILURE MODE-ERRATIC O                             | FAILURE MOE-ERRATIC OPERATION-ABNORMAL BUBTAINER AETURN PREBBURE OBBERVED ON LANDLINE BATA, MOST LIKELY BUE TG A P<br>OR MYDHAULIC BLEED.                                                                                              | RESSURE CONTRACTO CON                          | LAIDLINE D          | 47A. MD8             | T LINELY BUE TO A !                  |          |
| SYSTEM EFFECT-ERRATIC OPERATION.                   | OFFRATION.                                                                                                                                                                                                                             |                                                |                     |                      |                                      |          |
| VEHICLE EFFECT-NOME.                               |                                                                                                                                                                                                                                        |                                                |                     |                      |                                      |          |
| CORRECTIVE ACTION-HYDR                             | CORRECTIVE ACTION-HYDRAULIC FILL AND BLEED PERFORMED.                                                                                                                                                                                  |                                                |                     |                      |                                      |          |
| MYDRAULIC-A/R<br>SUSTAINE®/YERNIER                 | 60C/22465-0E7-0A1036-7L4-7NO-03-71 COSFOSITE-FRG/DPL                                                                                                                                                                                   | CONFOST TE-FRO/DML                             | 7111                | Z                    | 7£8<br>NO                            | \$<br>\$ |
| FAILURE MODE-INTERNAL -                            | FAILURE MODE-INTERMAL LEAK, ABMORMAL PMESSUME TRENOS CRREANDO ON BUSTAINER WTDRAULIC METURN LANDLINE AND TELEMETRY<br>Measurements: problem attributed to poor mydmaulic bleed.                                                        | WED ON BUSTAINER HTD                           | MAULIC MET          | UAN LAID             | JHE AND TELEMETAY                    |          |
| BYSTEM EFFECT-ERRATIC OFERATION.                   | OPERATION.                                                                                                                                                                                                                             |                                                |                     |                      |                                      |          |
| WEHICLE EFFECT-NOME.                               |                                                                                                                                                                                                                                        |                                                |                     |                      |                                      |          |
| CORRECTIVE ACTION-HYDR                             | CORRECTIVE ACTION-HYDRAULIC FILL AND BLEED PERFORMED.                                                                                                                                                                                  |                                                |                     |                      |                                      |          |
| HYDRAULIC-A/B<br>BUSTAIHER/VERNIER                 | E74456<br>FLOM LIMITER VALVE                                                                                                                                                                                                           | UIP-FET<br>27-04206-1                          | <b>80008</b>        | ý                    | VES STERER<br>NO 13000               | •        |
| FAILUNE HODE-OUT OF TO<br>SPEC. IS E.G TO E.18G M  | FAILUME MOE-OUT OF TOLEMANCE, DUMING PET LOM PLUID TEMP TEST. THE TRANSIENT RESPONSE TEST TIME MAS B.233 SECONDS (<br>SPEC. IS 2.0 TO 2.150 SECONDS), TEST SPECINEN SOS-1847. REFER TO FAILUME LOS SSI-2-GED.                          | IST. THE TRANSIENT RI<br>IR TO FAILURE LOG 35: | ES-0486 75:         | ž<br>Ž               | MB 8.233 BECONDS (                   |          |
| CORRECTIVE ACTION-RETE                             | CORRECTIVE ACTION-RETEST USING DIFFERENT UNIT.                                                                                                                                                                                         |                                                |                     |                      |                                      |          |
| HTDRAUL;C-A/B<br>Bubtainer/Vermier                 | 69A4673<br>Vernier Bervovalve                                                                                                                                                                                                          | UTP-PET<br>E7-04208-1                          | 100010              | 3/ <b>9</b>          | YES CADILLAC GAGE                    | 3        |
| PAILURE MODE-OUT OF TOU<br>816. THE ALLOMBLE VALUE | PAILUME MOE-OUT OF TOLERANCE-DURING PORT FLUID TEMP. SHOCK PROOF CYCLE, PARA-B.4.3, THE BIANDRY PHESSUME NAS 760 P<br>816. THE ALLOMABLE VALUE IS MINIMUM OF 1500 HLUS OF MINUS 500 PRIG, FAILUME CAUSED BY IMPROPER SPOOL LAPPING.    | , PROOF CYCLE, PARA-I<br>IO PBIG, FAILUME CAU  | 74.3. TMC           | STANDST<br>TOPER SPO | PRESSURE WAS 750 P.<br>Ct. CAPPING.  |          |
| COMECTIVE ACTION-NONE-<br>EARCH, PART ESSING WERE  | COMBECTIVE ACTION-MONE-TEST FOR ENGINEERING DATA ONLY. NOTE-HYDRAULIC RESEARCH NEVER QUALIFIED UNITS. HYDRAULIC RES<br>Earch, Part Esgind were mever plight articles, 60% part hunder used as reference only. Rep. CTCH NO. 881-2-038. | -HYDRAULIC RESEACH<br>MER USLD AS REFERENCE    | MYEA GUAL           | 17. C1CH             | HIS. HYDRAULIC AES<br>NO. 881-2-058. |          |

|             | CONVAIR DIVISION |  |
|-------------|------------------|--|
| 1 1 1 1 1 1 | CONVEIN          |  |
|             |                  |  |

| _       |                                                                                    |                                                                                                                                                                                                                                                                                       | DIFFICULTIES REVIEW-HYDRAULIC BYSTEM-AIRBORNE | *                                                      |                       |             |                                                                                                        |               |
|---------|------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|--------------------------------------------------------|-----------------------|-------------|--------------------------------------------------------------------------------------------------------|---------------|
|         | STSTEM<br>SUG-STSTEM                                                               | TESTAEPORT NUMBER<br>FAILED COMPONENT NAME                                                                                                                                                                                                                                            | DIF DATA BOURCE<br>PART NUMBER                | VEHICLE BITE<br>DATE DIP TIME DIP                      | 817E<br>71ME 01F      | 1 N 0       | VENDOR MANE                                                                                            |               |
| F 3     | HYDRAULIC-A/8<br>Bustaineq/Vermier                                                 | 6944671<br>Verhier Beryo Valve                                                                                                                                                                                                                                                        | UTP-PET<br>ET-34809-1                         | 100010                                                 | y/ <b>9</b>           | 5 9         | MYDRAULIC RESE<br>ARCH<br>ESGIBO                                                                       | ••••          |
| - 1     | FAILURC MODE-OUT OF TOLE<br>NAM ALLOMED VALUE 18 0.10                              | FAILURC MODE-OUT OF TOLERANCE-DURING THE HIGH FLUID TENPERATURE TEST THE TOTAL LEARAGE RATE MAS 0.100 GPH. THE MAXI<br>MUM ALLOMED VALUE IS 0.10 GPH CAUSED BY IMPROPER LPOOL LAPPING.                                                                                                | ATURE TEST THE TOTAL<br>ING.                  | LEARAGE R                                              | ATE 14.8 0            | • 10        | PH. THE MAKE                                                                                           |               |
| *#5     | CORECTIVE ACTION-CONTIN<br>BEARCH NEVER BUALIFIED UN<br>EFERENE ONLY. REF-CTCTH    | CORRECTIVE ACTION-CONTINUE EVALUATION TESTING, NO PURTHER ACTION.<br>Search Never Gualified Units, hydraulic Research, Part 256150; Unit<br>Eference only, Ref-Ctcth Munder 312-031.                                                                                                  |                                               | INCERING D<br>ARTICLES,                                | ATA ONLY.<br>60/C PAR | MOTE.       | TEST FOR EMBINEERING BATA OMLY. NOTE-HYDRAULIC RE<br>NEVER PLIGHT ARTICLES, GO/C PART HUMBER USED AS R |               |
| 1 8     | HYDRAULIC-A/B<br>Bustainer/Vernier                                                 | CT-98-04-RES<br>VERNIER ACTUATOR ABSENDLY                                                                                                                                                                                                                                             | FAR<br>27-65312-605                           | 151D<br>650601                                         | 3                     | 753 (1      | YES LIONEL PACIFIC                                                                                     | <b>430740</b> |
| _ w     | FAILURE MODE-CONTANINATION E FOUND IN THE AREA OF TH                               | FAILURE MODE-CONTAMINATION. UNIT REJECTED FOR EXTERNAL LEAKASE. FAILURE MAS NOT CONFINNED, ALTMOUGH FELT FIBERS MER<br>Found in the area of the O-rings.                                                                                                                              | raeg. Failurg imb moi                         | r core inte                                            | D. ALTHOU             | ē<br>3      | .T Flaces wen                                                                                          |               |
|         | CORRECTIVE ACTION-FAILUR                                                           | ION-FAILUNE NOT CONFIRMED. NO CORRECTIVE ACTION TAKEN.                                                                                                                                                                                                                                | ION TAKEN.                                    |                                                        |                       |             |                                                                                                        |               |
| £ 3     | Hydraul IC-A/B<br>Sustainer/Yermier                                                | CT-95-10-068<br>HYDRAULIC ACUMALATOR: O-RIME                                                                                                                                                                                                                                          | FAR<br>27-06553-3                             | 1510                                                   | ETR                   | YES THE     | PEACOCK<br>91363-3                                                                                     | *****         |
| _ M     | FAILURE MODE-LEAK INTERN<br>TO CONTANINATION AND DA                                | FAILURE MOE-LEAK INTERMAL-LEAKED GASEGUS MITROGEN PAST THE INTERMEDIATE PISTON INTO THE MYDRAULIC SIDE, LEAKAGE DU<br>E 10 comianimation and damaged o-ging, o-ging damaged at assenbly of unit,                                                                                      | E INTERNEDIATE PISTON<br>SEMBLT OF UNIT.      | 4 INTO THE                                             | HYDRAU.               | <b>8</b>    | E. LEARAGE DU                                                                                          |               |
| •       | CORRECTIVE ACTION-60/C RECOMENDED<br>LDE PROCUREMENT INSPECTION INFORMED           | CORFECTIVE ACTION-60/C RECOMENDED TO PEACOCK TO TAKE QUALITY CONTROL ACTION TO PRECLUDE RECUMBIKE OF PROBLEM. OUT                                                                                                                                                                     | ETY CONTROL ACTION TO<br>BEAR BURNET BTANP SA | 10 PRECLUDE<br>54-55.                                  | RECURREN              | <b>KE Q</b> | PROBLEM. OUT                                                                                           |               |
| £3      | MYDRAULIC-A/D<br>Bustainer/Vernier                                                 | 6944408<br>Bustainer Berydvalve                                                                                                                                                                                                                                                       | UTP-ET<br>27-04209-1                          | <b>630</b> F1.4                                        | FACTORY               | 20          | YES HYYRAULIC RESE<br>NO ARCH<br>ESISTO                                                                | ***           |
| _ = = = | FAILURE MODE-FAIL DURING<br>TE AT 1475 CPS. AT 1480 C<br>ID TEMPERATURE TEST.      | AIL DUAING OPERATION. DUAING ENGINEERING EVALUATION TEST, 2-AKIS VISRATION SERVOVALVE FAILED TO OPERA<br>At 1400 cps. Operation was resumed. Similar Failune occurred on 850737 during plus ste desates f plus<br>Test.                                                               | LUATION TEST, 2-AKIS<br>PAILUME OCCUMED ON    | VIBRATION<br>090717 DU                                 | RIME PLUA             | 4 4 4       | ILED TO OPERA<br>DEFASES F FLU                                                                         |               |
|         | CORRECTIVE ACTION-FAILUR<br>TE-HYDRAULIC RESEARCH HEY<br>MEER 27-04208-1 USED AS R | CORECTIVE ACTION-FAILURE PROBABLY CAUBED BY BHIFT OF TORBUE HOTOR ABBENBLY, VENDOR TO PREFORM FAILURE ANALYBIB. NO<br>TE-Hydraulic research Hever Bullified Units, Hydraulic Rebearch, Part Bbibto, Never Nab Plient Article, Bolc Part Nu<br>Noer 27-04208-1 UBED AB REFERENCE ONLY. | UE HOTOR ASSEMBLY. VI<br>ARCH. PART BELSTO. M | VENDOR TO PREFORM PAILURE<br>MEVER UND PLICHT ANTICLE. | HEFORM FA             | TOUR.       | AMALTBIB. MO<br>90/C PART MU                                                                           |               |

GENER. BYNANICS CONVAIR BIVIBION

13 JUN 1966

4

•

|   |                                                                                                                                                | DIFFICULTIES REVIEW-N                                                                                                                                                                                                                                                                                                                               | DIFFICULTIES AEVIEW-MYDRACLIC BYSTEM-AIRBORNE                                                                                                                                        | <b>y</b>                                                                                    |                                     |                                          |                                |                                       |
|---|------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|-------------------------------------|------------------------------------------|--------------------------------|---------------------------------------|
|   | 815.EM<br>816-3751EM                                                                                                                           | TESTARFORT NUMBER<br>FAILED COMPONENT NAME                                                                                                                                                                                                                                                                                                          | DIF DATA BOUNCE<br>PART NUMBER                                                                                                                                                       | WEHICLE<br>DATE DIF                                                                         | 11 6 11 T                           | - X                                      | VENDOR NAME<br>VENDOR PART NO  | <b>,</b> _                            |
|   | HTDRAULIC-A/B<br>BUSTAINER/YERNIER                                                                                                             | SEALLES VERNIER BERVOVALVE                                                                                                                                                                                                                                                                                                                          | UTP-PET<br>R7-04808-1                                                                                                                                                                | 61000                                                                                       | 3/8                                 | 2 3                                      | TES MODE, 1MC.<br>MC 010-45076 | :                                     |
|   | FAILURE MODE-OUT OF TOLE<br>816 18 ALLAMED: CAUSED PRE                                                                                         | FAILURE HODE-OUT OF TOLERANCE-DURING INITIAL ACCEPTANCE TEST, THE STANDBY PRESSURE WAS 2050 PSIG. MIMIMUM OF 2000 P<br>IG IS ALLAMED: CAUSED PROGRASILINY BY EXTERSIVE OVERLAP OF SPOOL SLEEVE DURING MACHIMING.                                                                                                                                    | EST, THE STANDBY PRESI                                                                                                                                                               | HEND A                                                                                      | 350 PB16.                           | 1                                        | HOH OF RODG P                  |                                       |
|   | CORRECTIVE ACTION-NOME, CONTINUE OR HODEL PART, QUALIFICATION TEST REF-LCP 3412 ALSO REF-CTCTH MUMBER                                          | CONTINUE TESTING TEST IS ENGINEERING PET CUALIFICATION TEST OF MODG SERVOVALUE, PET ON VEND<br>How test to establish R7-04E04-5 unit, GD/L Part Mumber R7-04E08-1 used as seference only.<br>The mumber 551-2-024.                                                                                                                                  | ING PET EUALIFICATION<br>UNIT: 60.c. PART NUMBE                                                                                                                                      | 7287 OF H                                                                                   | 006 BERYC<br>-1 UBED A              | 7) e1                                    | . PET ON VEND<br>ERENCE ONLY.  |                                       |
|   | HTDRAULIC-A/B<br>BUSTAINER/VERNIER                                                                                                             | 4944629<br>Vernier Lirvovalve                                                                                                                                                                                                                                                                                                                       | UTP-PET<br>E7-04209-1                                                                                                                                                                | 650713                                                                                      | 3 <b>3</b>                          | YES MODE,                                | MOO6,<br>010-45076             | 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 |
|   | FAILURE MODE-OUT OF TOLERANGE-DURING THE . THE MINIMUM ALLONED VALUES ARE PLUS 1.3R THE REGUIRED MAXIMUM FLOW COULD NOT BE CO.                 | garie e                                                                                                                                                                                                                                                                                                                                             | ICCEPTANCE TEST, THE LOND PLOM RATES NERE PLUS 1.025 AND -1.03 GPM<br>.080 GPM RESPECTIVELY. CAUSED BY VALWE SPOOL STOPS BEING TOO LARGE<br>DUE TO CMERSIZED SPOOL STOPS.            | RATES NE<br>BY VALVE                                                                        | AE P. UB 1<br>BPOOL 810             | 20 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 | AND -1.23 GPH<br>ING TOO LARGE |                                       |
|   | CORECTIVE ACTION-NOME. THE MATER OF NEW SPOOL PENDING A PRODUCTION ORDER, PET ON WENDOR HODEL NGER ET-04209-1 USED AS REFERENCE OMLY, REF. ECP | ON-NOME. THE HATTER OF NEW SPOOL STOPS FOR THE VENNOR VALVES WILL BE SISCUSSED WITH VENDOR BY DESIGN<br>CTION ORDER. PET OH VENDOR HODEL PART, BUALIFICATION TEST TO ESTABLISH RY-DAZOS—S UNIT, GO/C PART NU<br>USED AS REFERENCE ONLY, REF. ECP SAAR ALSO, REF-CTCTH MUMBER 351-2-030.                                                             | SIOPS FOR THE VENCOR VALVES WILL BE GISCUSSED WITH VENDOR BY DESIGN<br>Part. Gualification test to Establish R7-Dazob-S unit. Go/C Part Nu<br>Baar also. Ref-cicth Munger 351-2-030. | L BE 5180<br>ABL194 87<br>-2-030.                                                           | USSED WIT                           | 2 K                                      | DON BY DESIGN<br>GO/C PART NU  |                                       |
|   | MYDGAULIC-A/B<br>Bustainer vermier                                                                                                             | 69A462B<br>Vernier bervovalve                                                                                                                                                                                                                                                                                                                       | UTP-PET<br>27-04209-1                                                                                                                                                                | \$11080                                                                                     | 2/2                                 | 5.6                                      | 7£9 MQQ& 1MC.<br>M). 010-45074 |                                       |
|   | PAILURE MODE-OUT OF TOLER DAG VALUE 13 PLUS 1,08 GP D MOT SE GATAINED.                                                                         | PAILURE MOE-OUT OF TOLERANCE-DURING INITIAL ACCEPTANCE TEST, THE LOND FLOM RATE WAS PLUS 1,03 SPW, THE MINIMUM ALL<br>ONED VALUE IS PLUS 1,08 GPM, CAUSED BY VALME SPOOL STOPS THAT ARE TOO LARGE AND THEREFORE REQUIRED MINIMUM FLOW COLL<br>D NOT SE GATAINED.                                                                                    | TEST, THE LOAD FLOM RATE WAS PLUS 1.03 SPM. THE MINIMUM ALL<br>THAT ARE TOO LARGE AND THEREFORE REQUIRED MINIMUM FLOM COLL                                                           | THEREFORE                                                                                   | ACQUIRED                            | # . # . # . # . # . # . # . # . # . # .  | E MINIMUM ALL                  |                                       |
| 8 |                                                                                                                                                | CORRECTIVE ACTION-MOME. CONTINUE TESTING. THE MATTER OF NEW SPOOL STOPS FOR THE VERNIER VALVES MILL SL DISCUSSED MI<br>TH VENDOR BT DESIGN PENDING A PRODUCTION ORDER, PET ON VENDOR WODEL PART, SUALIFICATION TEST TO ESLABLISH ET-DAZON-S<br>UNIT. GO/C PART NUMBER 27-04208-1 USED AS REFERENCE CMLY, ECP 3448 ALSO, REF-CICTH NUMBER 331-2-023. | EN SPOOL STOPS FOR THE<br>FOR MODEL PART: BUALIF<br>ECP 344E ALBO: REF-CT                                                                                                            | OR THE VERNIER VALVES MIT. I<br>BUALIFICATION TEST TO ESTABL<br>REF-CICTH MAMBER 331-2-023. | 7ALVES ME<br>187 TO 68<br>1 881-8-0 | 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1    | D15CUSSEQ WI<br>BM 87-04808-8  |                                       |
|   | HTDRAU.IC-A/B<br>BUBTAINER/VERNIER                                                                                                             | BLV-99-04-5013-F<br>FEEDRACK (RAMSDUCER                                                                                                                                                                                                                                                                                                             | PAR<br>87-04811-1                                                                                                                                                                    | 61050                                                                                       | FASTORY                             | 10 1                                     | 20-418-3H                      |                                       |
| 2 | FAILURE MODE-OUT OF TOLER<br>ZIT. HAMBONCE S/N 6UB-11<br>EARITT. FAILURE MAS HOT CO                                                            | FAILURE MODE-OUT OF TOLERANCE-EACH TRANSDUCER PAILED TO MEET THE LIMEARITY REGUIREMENTS OF 407C SPECIFICATION 21-04<br>17. Transducer s/m sub-1163 mas found to be 4.00 pracent out of Limearity. B/m 8n4-1845 mms 1.33 percent out of Lim<br>Arity. Failure was not complined During Pailure analysis.                                             | ET THE LINEARITY REGU<br>NJ OF LINEARITY, B/N                                                                                                                                        | IRENENTS -                                                                                  | 40 1.33                             | PCC14                                    | ICATION 27-04<br>MI OUT OF LIM |                                       |

GENERAL BYNAMICS CONVAIR DIVISION

18 JUN 1966

| 3757EM<br>848-8757EM                                                     | TEST/REPORT HUMBER<br>PAILED COMPONENT NAME                                                                                                                                                                                                                                                                      | DIF DATA SOURCE<br>PART NUMBER                                                                                                    | VEHICLE<br>DATE DIF                                            | 11ME DIF OTH                            | Z 5        | VENDOR HAME<br>VENDOR PART NO           |                                        |
|--------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------|-----------------------------------------|------------|-----------------------------------------|----------------------------------------|
| COMPECTIVE ACTION-CA                                                     | COMMECTIVE ACTION-CALIGNATION PERBONNEL MENE CAUTIONED TO ADMENE TO THEIR PROCEDUNED.                                                                                                                                                                                                                            | TO ADMERE TO THEIR PROC                                                                                                           | towes.                                                         |                                         | ]          |                                         | # 17.18<br># 17.18                     |
| HIBAULIC-A/B<br>BUSTAINER/VERNIER                                        | ETALOS<br>VERNIER BETVOYALVE                                                                                                                                                                                                                                                                                     | UTP-PET<br>27-04209-3                                                                                                             | ******                                                         | : · · · · · · · · · · · · · · · · · · · | ÷ 8        | CADILLAC 646£<br>CO<br>FC26-397A        | •                                      |
| FAILURE MODE-OUT OF<br>-26 MA, THE MAXIMUM P                             | FAILURE MOE-OUT OF TOLERANCE-DURING POST 1,800,000 CYCLE LIFE PROOF CYCLE, THE MULL.<br>28 ma, The maximum Permitted 18 0.80 ma, caused by temperature bensitivity of valve.                                                                                                                                     | POST 1.800.000 CYCLE LIFE PROOF CYCLE, THE MALL CURRENT WAS MEISURED AS PLUS D<br>MA. CAUSED BY TEMPERATURE SENSITIVITY OF VALVE. | WALVE.                                                         | MENT 146                                | Š          | URED AS PLUS O                          | ··                                     |
| CORRECTIVE ACTION-ECP 5411 PROPOSES LIERNATE/REPLACEMENT VENDOR. PET LOT | CORECTIVE ACTION-EEP 3411 PROMOSES REDUCTION IN LIFE CYCLES TO 700.000. PRE-EEP ACTIVITY IN PROCESS FOR POSSIBLE A<br>Termie/replacement vendor. Pet lot 2-83 is acceptable. Ref-cictn number 581-2-019.                                                                                                         | REDUCTION IN LIPE CYCLES TO 700,000. PRE-ECP AC-<br>E-65 IS ACCEPTABLE, REF-CYCTH WUMBER 551-2-019.                               | CP ACTIVI<br>-019.                                             | # # P                                   |            | FOR POSSIBLE A                          |                                        |
| MTDRAULIC-A/B<br>BUSTAINER/VERNIER                                       | 274403<br>Sustainer Bervo Valve                                                                                                                                                                                                                                                                                  | 279-ET<br>27-04208-1                                                                                                              | 620059                                                         | 3/ <b>03</b>                            | <u> </u>   | YES HYDRAULIC RESE<br>NO ARCH<br>E61370 | •                                      |
| FAILURE MODE-DURING<br>UE TO A BROKEN ARMATU                             | FAILURE MODE-DURING ENGR. LIFE TEST. DURING FIAST PROOF CYCLE AFTER 450,000 CYCLES SERVO COULD NOT BE CONTROLLED: (<br>E to a broken armature (FEED Jack Spring). Similar Failure occurred on 650424 on Test specinem muser out and dos.                                                                         | CYCLE AFTER 450,000 CY<br>UNE OCCURNED ON 6504E4                                                                                  | CLES BERN<br>ON TEST BI                                        | COALD N                                 | NOT BE     | CONTROLLED, D                           | ************************************** |
| CORRECTIVE ACTION-RE<br>UNITS. HYDRAULIC RES                             | CORECTIVE ACTION-RETURN SERVO VALVE TO VENDORFOR SPOOL STOP INCORPORATION. NOTE-HYDRAULIC RESEARCH NEVER GUALIFIED<br>Units. Hydraulic Research, Part 201370, MAS NEVER FLIGHT ARTICLE. 60/C Part MUNDER UNED AS REFERENCE CHLY.                                                                                 | STOP INCORPORATION. NO<br>T ARTICLE, GO/C PART NU                                                                                 | NOTE-HYDRAULIC RESEARCH NEVER<br>NAMER UMED AS REFERENCE CHLY. | LIC RESEA<br>AS REFER                   | 5 3        | EVER QUALIFIED<br>CALT.                 |                                        |
| HYDRAULIC-A/B<br>SUSTAINER/VERMIER                                       | 2744403<br>Sustainer rerug valve                                                                                                                                                                                                                                                                                 | UTP-£1<br>£7-04508-1                                                                                                              | 610619                                                         | <b>5/9</b>                              | <b>1</b> 0 | VES MYDRAULIC RESE<br>NO ARCH<br>E81370 | •                                      |
| FAILURE MODE-OUT OF<br>ATURE SHOCK TEST, FLC<br>TIONAL FAILURES OCCUM    | FAILURE MODE-OUT OF TOLERANCE, DURING ENGR. IAT, POST VIRRATION, LOW TEMPERATURE, MIGH TEMPERATURE, AND POST TEMPER<br>ATURE SHOCK TEST, FLOW RATE VARIED FROM PLUS AND MINUS E.ST TO E.48 GPM, (SPEC IS PLUS OR MINUS E.36 GPM MAK.). ADDI<br>TIONAL FAILURES OCCURRED ON 650620 ON SANE TEST SPECIMEN B/N DOI. | ibration, low Temperatu<br>.37 to 2.46 GPM, (8PEC<br>  8/M DOI.                                                                   | ME, 1161                                                       | TEMPERATURE E                           | 3 6        | IND POST TEMPER<br>IPM MAK.). ADDI      | ····                                   |
| CORRECTIVE ACTION-NC TORAULIC RESERRCH, PA                               | CORRECTIVE ACTION-MOME. OUT OF TOLERANCEIS NOT CONSIDERED PROBLEM. HOTE-HYDRAULIC RESEARCH HEVER BUALIFIED UNITS. M<br>Daaulic Research, Part 2813To, Mas Never Flight article. 60/C Part Mumber Used as Reference Only.                                                                                         | ED PROBLEM, HOTE-HTDRAULIC RESEARCH MEVER .<br>. 60/C PART MUMBER USED AS REFERENCE ONLY.                                         | A.IC RESEA<br>) AS REFER                                       | NCH NEVER                               | *          | .F.IED UNITS. M                         |                                        |
| MYGRAULIC A/B<br>BUSTAINER/ERNIER                                        | A-88-04-5048-F<br>VERNIER ACTUATOR, O-RING                                                                                                                                                                                                                                                                       | FAR<br>27-06573-3                                                                                                                 | 11001                                                          | PACTORY                                 | 5 6        | TES LICHEL PACIFIC<br>NO 8792-2         |                                        |
|                                                                          |                                                                                                                                                                                                                                                                                                                  |                                                                                                                                   |                                                                |                                         |            |                                         |                                        |

FAILURE MODE-CONTANINATION-DURING STATIC LEAR TESTING, PER EOP 303-10, THE WERNIER ACTUATOR REPORTEDLY LEARED HYDRA ULIC OIL AT THE PISTON SEALS ON EACH SIDE OF THE RACK AND AT BOTH SHUBBER PORTS. LEARAGE IS ATTRIBUTED TO FISERS PRO HITHE FELT LUBRICATOR BRIDGING THE BEALING SURFACE OF THE C-5 AND C-2 END PISTON O-RING.

SENERAL BYNAMICS CONVAIR DIVISION

18 1UN 1966

DIFFICUATIES REVIEW-HYDRA'ALIC SYSTEM-AIRBORNE

|                                | •                                                                                                                                                                                    | :                                  | -                                                                                                                                                                                                                                                                         | ***                                      |                                                                                                                                                                                                                                                                                                            | 1                                   |                                                                                                                                                                                                                                     | •                                                                                                          |                                                                                                                                                                                                                                                                                                                                                             |
|--------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| VENDOR PART NO                 | 68 AND REPLACE                                                                                                                                                                       | YES AEROBULP<br>NO 677341-6-0213   | R PORTICE OF T                                                                                                                                                                                                                                                            | YES CADILLAC GAGE<br>NO CO.<br>FCE6-307A | INTO 1651. PAG-ECP                                                                                                                                                                                                                                                                                         | TES CADILLIAC 646E<br>NO FC-26-386A | 865 PS16 LOAD                                                                                                                                                                                                                       | VES PEACOCK<br>NO 51308-3                                                                                  | HE BUSTAJHER H<br>PHEUMATIC PRES<br>THE LACK OF TH                                                                                                                                                                                                                                                                                                          |
| 2 5<br>2 5                     | NI W                                                                                                                                                                                 | \$ g                               | 9 6                                                                                                                                                                                                                                                                       | ដូខ្                                     | 141                                                                                                                                                                                                                                                                                                        | 58                                  | 1                                                                                                                                                                                                                                   | ÷ 8                                                                                                        | 8 4                                                                                                                                                                                                                                                                                                                                                         |
| 71 K                           | 19-28779                                                                                                                                                                             | e S                                | OCKET AN                                                                                                                                                                                                                                                                  | 3/ <b>9</b>                              | B MACE                                                                                                                                                                                                                                                                                                     | 2/8                                 | MT 1 MI                                                                                                                                                                                                                             | I                                                                                                          | APPARENT<br>DECREATION                                                                                                                                                                                                                                                                                                                                      |
| DATE DIF 11ME DIF OTH          | HOVE ALL H                                                                                                                                                                           | 30£0<br>810¢10                     | ALLING POST 8                                                                                                                                                                                                                                                             | 909069                                   | Cubons 7AC<br>18 Cof 2-0<br>81-2-008.                                                                                                                                                                                                                                                                      | 131099                              | 200 LIPE 0                                                                                                                                                                                                                          | 7106<br>687160                                                                                             | TAK 00. T                                                                                                                                                                                                                                                                                                                                                   |
| DIF DATA SOURCE<br>PART NUMBER | 'LON LUBRICATOR. RE!                                                                                                                                                                 | FAR<br>87-08871-8                  | WEN LEARAGE APPEAL                                                                                                                                                                                                                                                        | UIP-PET<br>27-04209-1                    | MALITY CONTROL A" WEMDONS PA<br>DIT SPECIMEN FOR THIS LOT 8-<br>20. REF-CICIM NO. 881-8-009.                                                                                                                                                                                                               | UTP-PET<br>27-04208-1               | CYCLES TEST, PLOM-                                                                                                                                                                                                                  | CONTO & 1 TE-PRO / DPL.<br>87-04883-3                                                                      | ALCOVING COMMIT BTO<br>HE STRIEM. PRIOR TO<br>PART THE ACCUMULATO                                                                                                                                                                                                                                                                                           |
| FAILED COMPONENT NAME          | LUBRICATOR WITH TEP<br>VIBE LEARAGE CRITERI                                                                                                                                          |                                    | RED DURING CHECKOUT                                                                                                                                                                                                                                                       | ארתב                                     | BY UNBATTEPACTORY BE<br>1 TO VENOR REPLACENS<br>1E/REPLACENENT VENOC                                                                                                                                                                                                                                       | MALVE                               | PET POST 450,000 LIPE CYCLES TEST, PLOW RATE OF PORT 1 MITH A 1845 PSIG LOAD SIMILAR FAILURE ON 85/05/27 AFTER 1,330,000 LIPE CYCLES. TEST BPECIMEN 308-08-064.                                                                     | 60/CZZH88-018-041048-/L4-7HD-01-71 COMPOSITE-FRB/DPL<br>08<br>8U87AIHER HYDRAULIC ACCUMALATOR - 87-08888-8 | REBBURG TRANSIENT PC<br>ICATIVE OF AIR IN TV                                                                                                                                                                                                                                                                                                                |
| FAILED CO                      | M-ECP 3442 REPLACES FELT LUBRICATOR WITH TEPLO<br>EUALITY-TYPE O-RIMES. REVISE LEARAGE CRITERIA.                                                                                     | MZ-8D-10-E81F<br>HOSE ABSEMBLY     | TERMAL-PAILURE OCCUR                                                                                                                                                                                                                                                      | ETA4403.3<br>VERNIER SERVO VALVE         | S 2003 PSIS. CAUSED<br>JECTED TEST SPECIMEN<br>FOR POSSIBLE ALTERNA                                                                                                                                                                                                                                        | E744403<br>SUSTAINER BERNOVALVE     | TOLERANCE, DURING PE<br>8 2.36 GPM MAX.), 81<br>LOG 351-2-007 AND -0<br>CORECTIVE ACTION R                                                                                                                                          | 60/CZZM68-018-0<br>08<br>8USTAINER MYDRA                                                                   | L LEAK, THE MORNAL PARENTS, THIS IS END                                                                                                                                                                                                                                                                                                                     |
| BYBTEN<br>BLB-STBTEN           | COMECTIVE ACTION-ECP 3442 REPLACES FELT LUBRICATOR WITH TEPLOM LUBRICATOR. REMONE ALL HD-28775 O-RIM65 AND REPLACE<br>WITH TOP VISUAL QUALITY-TYPE O-RIM65. REVISE LEARAGE CRITERIA. | MYDRAULIC-A/B<br>BUSTAINER/VERNIER | FAILUME WODE-LEAK-ERTERNAL-FAILUME OCCUMRED DUMING CHECKOUT NOWN LEARAGE APPEARED PAST SOCKET AND FLEX PONTICM OF T<br>HE MOSE.<br>COSRECTIVE ACTION-60/C PERSONNEL NEME CAUTIONED TO TAKE GREATER CARE NAMEN HASTALLING WORES AND TO PREVENT TOO SMARP<br>A BEND RADIUS. | HYDRAULIC-A/B<br>BUSTAIMER/YERNIER       | RIMM ALCONED VALUE 13 2000 PSIE. CAUSED BY UNSATISFACTORY SUBLITY CONTROL AT WENDORS FACILITY.  COMPECTIVE ACTION-REJECTED TEST SPECINEN TO WENDOR REPLACEMENT SPECINEN FOR THIS LOT 2-65 PLACED INTO TEST. PRE-ECP ACTIVITY IN PROCESS FOR POSSIBLE ALTERNATE/REPLACEMENT WENDOR, REF-CTCH NO. 851-2-008. | HYDRAULIC-A/B<br>BUSTAINER/YERNIER  | FAILURE MODE-OUT OF TOLERANCE. BURING PET POST 450,000 LIPE INAS 2.42 6PH (SPEC. IS 2.36 GPM MAX.). SIMILAR FAILURE ON 85/1 65, REFER TO FAILURE LOG 351-2-007 AND -006. CORECTIVE ACTION NO CORRECTIVE ACTION RESURED. ACCEPT LOT. | HTD4AULIC-A/B<br>Bustaimeq/Yernier                                                                         | FAILURE MODE-INTERNAL LEAK. THE MORNAL PRESSURE TRANSIENT FOLLOWING COMMIT STOP WAS NOT APPARENT ON THE SUSTAINCR M<br>TDAVALE KETCH MASSUREMENTS. THIS IS INDICATINE OF AIR IN THE STOTEN. PRIOR TO THE DRY A DECREASE IN PHEUMATIC PRES<br>THE CHEST OF THE MASSUREMENTS ACCUMBATION AND LEARING PART THE ACCUMBATOR PLAYER WOULD EXPERIN THE LACE OF THE |

states seerit-contil necoatifu.

GENERAL BYNAMICS CONVAIR BIVIBION

11 104 1000

| VEHICL                            | BYBTEN                                                                        | 16.81/8                                                                                                           | TEST/PERSON MARKS                                          | DIF DATA SOURCE                                                                                                                                                                                                                                                         |                                       |             | ,                |                                         | _ |
|-----------------------------------|-------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|-------------|------------------|-----------------------------------------|---|
| VEHICL                            | 8U8-8YSTEN                                                                    | PAILED C                                                                                                          | PAILED COMPONENT NAME                                      | PART NUMBER                                                                                                                                                                                                                                                             | DATE DIF                              | 11 ME DIF   | OTH              | VENDOR HANE<br>VENDOR PART NO           |   |
|                                   | WEHICLE EFFECT-NOME,                                                          |                                                                                                                   |                                                            |                                                                                                                                                                                                                                                                         |                                       |             |                  |                                         | • |
| CORFEC                            | 11 VE ACTION- 8UST                                                            | AINER HYDRAULIC A                                                                                                 | CCUMAATON REPLAC                                           | CORECTIVE ACTION-SUSTAINER HYDRAULIC ACCUMMATOR REPLACED AND FILL AND BLEED PERFORMED.                                                                                                                                                                                  | PERFORMED.                            |             |                  |                                         |   |
| HYDRAULIC-A/B<br>BUSTAINER/VERNIE | C-A/B<br>9/VERNIER                                                            | SLY-90-10-200F<br>ACCUMULATOR, O-RIM                                                                              | - n 1 106                                                  | FAR<br>87-06558-3                                                                                                                                                                                                                                                       | 7100<br>6905£0                        | ž,          | 59               | PEACOCK<br>\$1.505-3                    |   |
| FAILUR                            | FAILURE MODE-LEAR-INTEI<br>INBTALLED O-RING.                                  | RIAL. PIEURATIC PI                                                                                                | MESSURE DECAYED A                                          | FAILUAE MOG-LEAK-INTERMAL. PMEUMATIC PRESSURE DECAYED AND GAS HAS POLAD IN THE NYDRALLIC SYSTEM DUE TO IMPROPEALY<br>MSTALLED O-RIMG.                                                                                                                                   | E HVDRAUL!                            | 1C 8787EM   | 2                | O IMPROPERLY                            |   |
| CORREC<br>MED 70                  | CORRECTIVE ACTION-VENDO                                                       | ION-VENDOR MAS MOTIFIED TO<br>CRUSH SEALS PROPERLY.                                                               | O PROVIDE PROPER                                           | CORRECTIVE ACTION-VENDOR WAS HOTIFIED TO PROVIDE PROPER PLATING AND O-RING INSTALLATION, 60/C PERSONNEL NERE CAUTIO                                                                                                                                                     | DTALLATION.                           | ¥ >/9       | 7808E            | i. NERE CAUTIO                          |   |
| HYDRAULIC-A/8<br>SUSTAINER/VER    | HYDRAUL IC-A/8<br>SUSTAINER/YERNIER                                           | ETA4403.E<br>SUSTAINER BERNOVALVE                                                                                 | OVAL VE                                                    | UTP-PET<br>27-04208-1                                                                                                                                                                                                                                                   | 618089                                | <b>3/9</b>  | 2 Q              | CADILLAC GAGE<br>FCE0-390A              | 3 |
| FAILUR<br>R MINUS                 | FAILURE MODE-OUT OF TON                                                       | LERANCE. DURING PI<br>. TEST SPECINEN AL                                                                          | ET PLUID LOW TENG<br>OR-0942, REFER TO                     | FAILURE MODE-OUT OF TOLERANCE. DURING MET PLUID LOW TEMP, TEST, MALL OFFSET CURRENT MAS -0.23 M.A. 13PEC. IS PLUS O<br>I MINUS U.20 M.A. MAX.). TEST SPECINEN AGE-0042, REFER TO FAILURE LOS 551-2-004, UNIT DOES MOT REPRESENT ACTUAL LOT.                             | URREST WAS                            | -0.23 W.(   | A. (SP<br>PRESEN | EC. 18 PLUS 0<br>17 ACTUAL LOT.         |   |
| CORREC                            | CORRECTIVE ACTION-SUBMI                                                       | IT ECP TO INVESTIC                                                                                                | GATE ALTERNATE VA                                          | CORRECTIVE ACTION-SUBMIT ECP TO INVESTIGATE ALTERNATE VALVE SOURCE. ALSO, ALL PUTUME TEST APECIMENS MILL RECEIVE SP<br>CIAL IAT PRICA TO TEST.                                                                                                                          | Putual TEA                            | )T 10EC110  |                  | IL RECEIVE SP                           |   |
| HTDRAULIC-1/B<br>BUSTAINER/VERNIE | C1/8<br>q/veanier                                                             | ETA4403<br>SUSTAINER BERUCVALUE                                                                                   | OVALVE                                                     | UTP-ET<br>E7-04E08-1                                                                                                                                                                                                                                                    | \$16099                               | 3/ <b>9</b> | 1 Q              | YES HYDRAULIC RESE<br>NO ARCH<br>261370 | • |
| י ובאו                            | AILURE MODE-FAIL DURIN<br>FEST SPECIMEN DDI: REF                              | IL DURING OPERATION BURING ENGINEERS<br>GOS: REFER TO FAILURE LOG 991-2-003.                                      | NG ENGINEERING OF<br>16 951-2-003.                         | FAILURE MOSC-FAIL DURING OPERATION DURING ENGINEERING OPERATING VIBRATION TEST. AT 850 CPS, VALVE CEALED TO OPERATE.<br>FEST SPECINEN DDI, REFER TO FAILURE LOG 551-2-003.                                                                                              | f. AT 950 (                           | PS. VALM    | 3                | ED TO OPERATE                           |   |
| CORREC<br>ER BUAL<br>V.           | five action-eetum<br>ified umits. Hydi                                        | CORRECTIVE ACTION-RETURN VALVE TO VENDORFON RENDRA.<br>ER GUALIFIED UNITS. MYDRAULIC RESEARCH, PART 201370.<br>V. | RFOH REWORK. UPON<br>PART 261370, MEVE                     | CORRECTIVE ACTION-RETURN VALVE TO VENDORFON RENDRK. UPON RETURN TO 60/C; RETERT VALVES, NOTE-HYDRAULIC RESEARCH NEV<br>R AUALIFIED UNITS: HYDRAULIC RESEARCH, PART 261370, NEVER WASFLIGHT ARTICLE, 60/C PART NUMBER USED AS REFERENCE ONL                              | 17 VALVES.<br>10/C PART 1             | NOTE-NTD    | PAULIC<br>ED AB  | RESEARCH NEV<br>REFERENCE ONL           |   |
| HYDRAULIC-A/B<br>BUSTAIMER/VERNIE | C-A/B<br>R/VERNIER                                                            | ETALEDS<br>SUBTAINER BERNO VALVE                                                                                  | D VALVE                                                    | UTP-PET<br>87-04800-1                                                                                                                                                                                                                                                   | 41604                                 | ÿ           | 50               | VES HYDRAULIC RESE<br>NO ARCH<br>E81370 | 1 |
| 741108                            | FAILURE MODE-OUT OF TOU<br>PRIG (RPEC, IN 1000 PRI<br>(RPEC, IN 1.04 GPH MIM. | LERANCE DURING ENG.<br>16 MIM.) DURING PI<br>1 ALGO MYBIGRASS                                                     | GINCERING FLUE 30<br>ET PLUE 105 DEGRE<br>MAD 8.8 N.A. (9P | UT OF TOLERANCE BURING ENGINEERING FLUB 30 DEGATEES F PLUID TEMPERATURE TEST, STANDSY PAESSURE MAS 800 500 PSIC MIM.) DURING PRES 168 DEGREES F FLUID TEMPERATURE TEST FLOM OUT OF PORT 1 MAS 1.60 6PM GPM HIM.) ALGO WISTERS IN B.S. B.S. B.S. B.S. B.S. B.S. B.S. B.S | ERATURE TEL<br>E TEST PLOS<br>NUMB) . | 17. STAND   | 7 2              |                                         |   |

GENERAL BYNAMICS CONVAIR DIVISION

AT NE R

\*\*\*\*\*\*\*\*\*\*\*

|                                                                                            | DIFFICUATIES REVIEW-                                                                                                                                                                                                                                                                                                                                                                                                                                                               | DIFFICULTIES AEVIEW-HYDRAULIC STSTEM-AIRBORNE                                                                                      | ¥                                                            |                                             |                                               |                                                          | ,       |
|--------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|---------------------------------------------|-----------------------------------------------|----------------------------------------------------------|---------|
| 8781EN<br>8-8-8781EN                                                                       | TEST/REPORT HAMBER<br>FAILED COMPONENT NAME                                                                                                                                                                                                                                                                                                                                                                                                                                        | DIF DATA BOURCE<br>PART NUMBER                                                                                                     | WEMICLE<br>DATE DIF                                          | 3116 PR1<br>71ME B1F OTH                    |                                               | VENDOR PART NO                                           | <b></b> |
| COMECTIVE ACTION-R<br>ER GUAL (FIED UNITS.                                                 | CORECTIVE ACTION-RETURN VALVE TO VENDORFOR REMORE, UPON RETURN TO 60/C, RETEST VALVES, NOTE-HYDRAULIC RESEARCH MEV<br>ER GUALTTED UNITS. HYDRAULIC RESEARCH, PART 281370, NAS HEVERFLIGHT ARTICLE, 60/C PART MAGER USED AS REFERENCE ONL                                                                                                                                                                                                                                           | UPON RETURN TO 60/C, RETEST VALVES, NOTE-HTDRAULIC RESEARCH NEV<br>NAS NEVERFLIGHT ARTICLE, 60/C PART NAMBER USED AS REFERENCE ONL | ST VALVES.                                                   | MOTE-HTO                                    | TAME TO                                       | RESEARCH MEV<br>REFERENCE OML                            |         |
| MYDRAULIC-A/B<br>B/33TAINER/VERNIER                                                        | SLV-99-04-5036-F<br>VERNIER ACTUATOR ASSEMBLY, BEALB                                                                                                                                                                                                                                                                                                                                                                                                                               | FAR<br>LB 27-05312-009                                                                                                             | 915069                                                       | PACTORY                                     | 7.03                                          | TES LIGHEL PACIFIC                                       | •       |
| F/ILUGE MOE-CONTAN<br>AMMY AREA IN THE CYL<br>TOR BRIGGING THE PIS<br>ACTUATOR BUILD-UF AN | FILLME WIDE-CONTAMINATION, VERNIER ACTUATOR ASSY REPORTEDLY LEAKED EXCESSIMELY FROW THE TRAMSDUCER END OF THE CUT-<br>AMAY AREA IN THE CYLINGER BODY EXPOSING THE PISTON GEAR RACK, LEAKAGE MAS CAUSED BY A CHURK OF FELT FROM THE LUBRICA<br>TOR BRIDGING THE PISTON O-RING SEALING SURFACE, THE CHURK OF FELT MAS APPARENTLY SHEARED FROM THE LUBRICATOR DURING<br>ACTUATOR BUILD-UF AND BECAME DEPOSITED ON THE PISTON BEAL DURING BURBERUENT SERVOCYLINDER ASSEMBLY OPERATION. | TEDLY LEAKED EPCESSIVE<br>RACK, LEAKAGE WAS CAUS<br>K OF FELT WAS APPARENT<br>L DURING SUBSÉGUENT BE                               | LY FROM THE<br>ED BY A CH<br>LY BACARED<br>AVOCYLINDE        | E TRAMSOUGUER OF FER                        | 7 7 7 8 6 4 6 4 6 4 6 4 6 4 6 4 6 4 6 4 6 4 6 | D OF THE CUT-<br>H THE LUBRICA<br>CATOR DURING<br>ATION. |         |
| CORRECTIVE ACTION-SHOP                                                                     | HOP AND INSPECTION PERSONEL NEWE INFORMED OF THIS FAILURE                                                                                                                                                                                                                                                                                                                                                                                                                          | FOHED OF THIS FAILURE                                                                                                              | AMD 178 CAUSE.                                               | AUBE.                                       |                                               |                                                          |         |
| HTDRAULIC-A/B<br>SUSTAINER/YERNIER                                                         | SLY-A9-10-E77-F<br>HTDRALLIC HOSE ASSEMALT                                                                                                                                                                                                                                                                                                                                                                                                                                         | FAR<br>E7-06571-5                                                                                                                  | 71-11<br>690511                                              | FACTORY                                     | 20                                            | YES AEROQUIP<br>NO 677341-6-0213                         | i       |
| FAILURE MODE-LEAK-E                                                                        | FAILURE MODE-LEAR-EKTERMAL. MOSE DEWELDPED LEARAGE PAST SOCKET AND FLEK PORTION OF MOSE.                                                                                                                                                                                                                                                                                                                                                                                           | BOCKET AND PLEK PORT!                                                                                                              | 300 JO NO                                                    | •                                           |                                               |                                                          |         |
| CORRECTIVE ACTION-60/C                                                                     | CORECTIVE ACTION-GOVE PERSONNEL NEME CAUTIONED TO UME CAME MACH INSTALLING PLEH HOMES TO PREVENT THISTING OF PLEH<br>ONTION RELATIVE TO THE BOCKE".                                                                                                                                                                                                                                                                                                                                | CARE MACH INSTALLING F                                                                                                             | LEN HOSES                                                    | TO PREVEN                                   | 7                                             | TIME OF FLEX                                             |         |
| HTU4AUL IC-A78<br>BUSTAINE 47VERNIER                                                       | LV-AB-D4-3033<br>ACTUATOR-VERHIER                                                                                                                                                                                                                                                                                                                                                                                                                                                  | FA4<br>87-65518-605                                                                                                                | 1648                                                         | FACTORY                                     | 5 Q                                           | TES LIGHTL PACIFIC 000130                                | 1       |
| FAILUKE MODZ-LEAK EKIERMAL-ASSEMBLY MM<br>IB ASSEMBLY, FAILUME MAB NOT CONFIRMED.          | FAILUKE MODE-LEAK EKIERMAL-ASSEMBLY MAB FOUND LEAKING MYDRAULIC OIL PABY THE BMAFT MEAL ON THE TRANSDUKER END OF<br>8 ASSEMBLY, FAILUME MAB NOT CONFIRMED.                                                                                                                                                                                                                                                                                                                         | PRAILE OIL PART THE                                                                                                                | BOLLFT MEAL                                                  | 9 14 15 15 15 15 15 15 15 15 15 15 15 15 15 | LA MESO.                                      | KER END OF TH                                            |         |
| CORECTIVE ACTION-6<br>ATOR ASSEMBLIES. REC                                                 | CORECTIVE ACTION-60/C INITIATED QUALITY CONTROL CORRECTIVE ACTION TO HININIZE REJECTION OF FUNCTIONAL VERNIER ACTU<br>Ator assemblies, recomending, the cycling of binilax actuaturs before static or dynamic lear tests.                                                                                                                                                                                                                                                          | TIVE ACTION TO HININII<br>THATURE BEFORE STATIC                                                                                    | HININIZE REJECTION OF FUNCTION STATIC OR BYNAMIC LEAR TESTS. | H OF FUNC<br>LEAR TES                       | 100                                           | . VERNIER ACTU                                           |         |
| MYDRAULIC-A/B<br>BUBTAINER/VERNIER                                                         | LV-98-10-876F<br>SUSTAINER PURE                                                                                                                                                                                                                                                                                                                                                                                                                                                    | FAR<br>87-06590-8                                                                                                                  | 10101                                                        |                                             | 5 8                                           | 768 VICAERS<br>NO AA-96410-L-8                           |         |
|                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | · · · · · · · · · · · · · · · · · · ·                                                                                              |                                                              |                                             |                                               |                                                          |         |

PAILUAE MOGELLEAR ERTERNAL, PUMP NAS REJECTED FOR OIL BERPAGE AT INLET AND CUTLET PLANGES.

SENERAL DYNAMICS CONVAIR DIVISION

38

|   | 9101 107 11                                                                     | DIFFICULTIES REVIEW-HYDRAULIC STRTEM-AIRBORNE                                                                                                                                                                                                                          | PRAULIC STRIEM-AIRBOT                                        | Ĭ                       |                      |            |                                        | ٠    |
|---|---------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|-------------------------|----------------------|------------|----------------------------------------|------|
|   | 8787EX<br>846-8787EX                                                            | TEST/REPORT MUNBER<br>FAILED COMPONENT NAME                                                                                                                                                                                                                            | DIF DATA BOUNCE<br>PART NUMBER                               | WEMICLE<br>DATE DIF     | 817E<br>71ME DIF     | 1 0<br>2 2 | VENDOR NAME<br>VENDOR PART NO          |      |
|   | CORRECTIVE ACTION-FAILUR                                                        | ON-FAILURE NOT CONFIRMED. NO PURTHER ACTION.                                                                                                                                                                                                                           | Ŕ                                                            |                         |                      |            |                                        |      |
|   | MIDGAULIC-A/B<br>BUSTAINER/VERHIER                                              | AA65-0018/PE-401-00-E64<br>SUSTAINER PUMP: FLANGE                                                                                                                                                                                                                      | COUNTDOMN<br>87-08590-8                                      | £440<br>\$1080¢         | -13060               | <b>2</b> 8 | VES VICKERS<br>NO AA-80410-L-2         | **** |
|   | FAILURE MODE-LEAR, EXTERNAL, HYDRA<br>E MERE DISCOVERED BURING COUNTDOMN.       | ARI EXTERNAL. HTDRAULIC PUMP LEARAGE AT INLET AND OUTLET PLANGES AND AT A MANUFACTURING ACCESS FLAMS.<br>D DURING COUNTDOMI.                                                                                                                                           | ALET AND CUTLET PLANE                                        | 13 AND AT A             | MANUFAC              | ž          | 6 ACCESS PLANS                         |      |
|   | SYSTEM EFFECT-NOME.                                                             |                                                                                                                                                                                                                                                                        |                                                              |                         |                      |            |                                        |      |
|   | VEHICLE EFFECT-COUNTDOM                                                         | COUNTDOMN DELAYED APPROXIMATELY 100 MINUTES.                                                                                                                                                                                                                           | ė                                                            |                         |                      |            |                                        |      |
|   | CORRECTIVE ACTION-PURP I                                                        | ON-PUMP REPLACED BURING COUNTDOWN HOLD. (I                                                                                                                                                                                                                             | (REPERENCE NO 62817). PUMP WAS REPLACED AGAIN AFTER COUNTDON | 14 cm cm                | PLACED A             | ī          | AFTER COUNTDOM                         |      |
|   | HYDRAULIC-A/B<br>BUSTAINER/VERNIER                                              | 3LV-98-04-5021-F<br>ACTUATOR-VERNIER                                                                                                                                                                                                                                   | FAR<br>27-05312-008                                          | 530E<br>630500          | FACTORY              | ភូទ        | VES LIGHEL PACIFIC                     |      |
|   | FAILURE MODE-LEAK EKTEN<br>403-13. THE CAUSE OF FA                              | FAILURE MOE-LEAK EKTERMAL-OIL LEAKED AT 3 DROP3 PER CYCLE FROM THE MALL ADJUBTHENT SCREW DURING PERFORMANCE OF EOP<br>405-13. THE CAUSE OF FAILURE REMAINS UNKNOMM AS ONLY A PARTIAL AMALYSIS WAS DIRECTED.                                                            | LE FROM THE MULL ADJU<br>RRTIAL AMALTSIS WAS DI              | STHENT BCRE<br>INECTED. | 25 DUE 18            | 2          | CANANCE OF EGP                         |      |
|   | CORRECTIVE ACTION-NO CO                                                         | CH-NO CORRECTIVE ACTION INITIATED.                                                                                                                                                                                                                                     |                                                              |                         |                      |            |                                        |      |
|   | MYDRAULIC-A/B<br>SUSTAINER/VERNIER                                              | RTALESS<br>SUSTATINER BERNOWALVE                                                                                                                                                                                                                                       | U1P-PE1<br>E7-04208-1                                        | 450412                  | <b>3/05</b>          | <b>1</b> 0 | CADILLAC GAGE<br>FC26-396A             | •    |
|   | FAILURE MODE-OUT-OF-TOLL                                                        | FAILURE MODE-OUT-OF-TOLERANCE DUMING PET POAT 1,350,000 LIPE CYCLE PROOF CYCLE TEST. THE MULL OFFSET CURRENT MAS U.<br>18 M.A. (SPEC. 18 D.20 M.A. MAX). TEST SPECINEN 404-0880. LOT 1-65, REPER TO FAILURE LOS 511-2-001.                                             | LIFE CYCLE PROOF CYCLI                                       | E TEBY. THE             | 181-8-00<br>181-8-00 |            | CURRENT MAS U.                         |      |
|   | CORRECTIVE ACTION-ECP 34                                                        | ON-ECP 3411 MAS BEEN BUBMITTED TO REDUCE LIFE CYCLES TO TOGISSO CYCLES.                                                                                                                                                                                                | LIFE CYCLER TO 700.00                                        | CVCLES.                 |                      |            |                                        |      |
| • | MTDRAULIC-A/B<br>Bustainer/Vernier                                              | E744330<br>VERNIER BERVO VALVE                                                                                                                                                                                                                                         | UTP-FET<br>27-04209-1                                        | 317660                  | 3/09                 | 20         | CADILLAC <b>CACE</b><br>CO<br>FCE-387A |      |
|   | FAILURE MODE-OUT OF TOLI<br>ES MA. THE MAKINUM PERMI<br>HIP TYPE MANUFACTURING. | FAILURE MOCE-OUT OF TOLERANCE. BURING POST BODIDDO CYCLE LIFE PROOF CYCLE, THE MULL CURRENT WAS NEASURED AS PLUS D.<br>15 Mai the maximum permitted is 0.20 Mai cause of Biscrepancy is maximum capability of Design Couples with Craftmans<br>11P TYPE Manufacturing. | LIFE PROOF CYCLE, THANKY LAPAN                               | I MULL CUR!             | IENT MAS             | KAR        | MED AS PLUS O.<br>MITH CRAFIMANS       |      |
| 1 | COMMECTIVE ACTION-NOME                                                          | ON-HOME-IMPROVED IAT TESTIMS AND REPLACEMENT STUDY PROSSAM ALAREADY EXISTS. ECP 3411 PROPOSES AEDUCTI                                                                                                                                                                  | ENT STUDY PROGRAM ALR                                        | EADY EXEST              | 56 2                 | 3          | Drosts atout                           |      |

GENERAL BYNAHICS CONVAIR DIVISION

11 101 1100

|                                                                                                            | DIFFICULTES RETIEM-NTONAULIC STSILM-AIMBONNE                                                                                                                                                                                                                                                                                                                                                                                         | RAULIC STRILM-AIRBON                                                                                   |                                       |                  |                                                    |                 |      |
|------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|---------------------------------------|------------------|----------------------------------------------------|-----------------|------|
| STSTEM<br>SUB-STSTEM                                                                                       | TEST/REPORT NUMBER<br>FAILED COMPONENT NAME                                                                                                                                                                                                                                                                                                                                                                                          | DIF DATA SOURCE<br>PART NUMBER                                                                         | VEHICLE<br>DATE DIF                   | TIME DIF OTH     | VENDOR V                                           | MANE<br>PART NO |      |
| ON IN LIFE CYCLES TO 700.                                                                                  | \$ TO 700.000. REF-CTCTM NO. \$51-2-002.                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                        |                                       |                  |                                                    |                 | **** |
| HTDRAULIC-A/B<br>BUSTAINER/VERNIER                                                                         | LV-AS-04-5024-F<br>VERNIER ACTUATOR ASSEMBLY, SEAL                                                                                                                                                                                                                                                                                                                                                                                   | FAR<br>27-65312-608                                                                                    | 42604                                 | FACTORY          | YES LICHEL PACIFIC<br>NO                           |                 |      |
| FAILURE MODE-CONTANIMATI                                                                                   | FAILUME MODE-CONTAMINATION-NYDRAULIC OIL UMS POUMD LEARING PAST THE ACTUATOR SMAPT SEAL. LEARAGE MAS DUE TO PELT LU<br>Aicator Fibers blocking the sealing o-ring.                                                                                                                                                                                                                                                                   | PAST THE ACTUATOR 8                                                                                    | HAFT BEAL.                            | LEARAGE          | MAS BUE TO PE                                      | 3               |      |
| CORRECTIVE ACTION-THE AL                                                                                   | CORECTIVE ACTION-THE ALLOMBLE LEAR RATE IMS INCREASED. CYCLING OF ASSEMBLIES BEFORE THEIR REJECTION IS NOW REBUIR<br>D at etr and wire, eop 305-10 ims revised for a 300 cycle dynamic test for learage in receiving imspection.                                                                                                                                                                                                     | CYCLING OF ASSEMBLIES BEFORE THEIR REJECTION IS N<br>DYNAMIC TEST FOR LEARAGE IN RECEIVING INSPECTION. | BEFORE TH                             | EIR REJE         | .1104 18 NOV R                                     | E LOS           |      |
| HYDRAULIC-A/B<br>BUBTAINER/VERNIER                                                                         | SLV-98-04-5015-F<br>VERNIER BERVO VALVE, MOTOR                                                                                                                                                                                                                                                                                                                                                                                       | FAR<br>E7-04209-1                                                                                      | 08088                                 | PAC TOR V        | YES CADILLAC 646E<br>NO FCE6-397A                  |                 | 2 7  |
| FAILURE MODE-STRUCTURAL. REVOYALYE BODT-TO-CAP INTE THE TORAUE MOTOR CAP SID ROLE MOTOR CAP MAS TARNSE     | FAILURE MODE-STRUCTURAL. DURING RETEST OF THE SERVOYALVE, PER SURVEY 87-84, LEAKAGE REPORTEDLY OCCURRED FROM THE SE<br>Ryovalve body-10-cap interface leakage reported has not comfirmed during laboratory tests. Modever the crack takousm<br>The tombus motor cap side wall could easily allow leakage depending on unere the o-ring seated. The crack in the to<br>Role motor cap has transgramlar indicating a mechanical cause. | PER SURVEY 87-64, LE<br>FIRMED DURING LABORA<br>DEPENDING ON WHERE 7<br>USE.                           | AKAGE REPO<br>TORY TESTS<br>ME O-RIMB | NTEDLY OF HOMEVE | CURRED FRON TO<br>THE CRACK THI<br>THE CRACK IN TO | #3 #            |      |
| CORRECTIVE ACTION-PLANNI                                                                                   | CORRECTIVE ACTION-PLANNING CARDS FOR BERVOVALVE OVERHAUL WERE REVISED. EFFECTIVE ON DATE 650187, REGUIRING TOROUG.<br>STOR CAPS BE CHECKED FOR CRACKS USING A MINIMAN OF 10-POMER MAGNIFICATION.                                                                                                                                                                                                                                     | ENE NEVÍNED, EFFECTI<br>MAGNIFICATION.                                                                 | M OR PATE                             | 450367,          | ACENIAIMS TON                                      | ž,              |      |
| HYDRALL IC-A/B<br>BUSTAINER/VERNIER                                                                        | LV-A8-04-5026-F<br>VERNIER AG7UATOR, O-RIMB                                                                                                                                                                                                                                                                                                                                                                                          | FAN<br>E7-6681E-608                                                                                    | 0-7-0-0                               | PACTORY          | VES LIGHEL PACIFIC                                 |                 | 9    |
| FAILURE MODE-LEAK EXTERNAL-DURIN<br>IC PRESSURE, THE EVIDENCE FOUND 3<br>AS STOPPED BEFORE ITS CONFLETION. | FAILURE HODE-LEAK EXTERNAL-DURING ROUTINE BURNEILLANGE; THE ASSEMBLY NAS REPORTED TO MANG A RUDNING LEAK UNDER STAT<br>C PRESSUME, THE EVIDENCE FOUND DHOMED LEARANG NAS CAUGED BY GROSS DEFECTS-SPLIT O-RIMBS; AND NO BRUKELE. AMALYSIS W<br>IS STOPPED BEFORE ITS COMPLETION,                                                                                                                                                      | E ASSEMBLY WAS REPORT<br>T GROSS DEFECTS-SALI                                                          | TED TO MAY<br>7 O-RINGS.              | ON ON            | ING LEAK UNDER<br>DOUEZE. AMALY                    | ¥ 3             |      |
| CORRECTIVE ACTION-NO CORRECTIVE ACTION TAREN.                                                              | RECTIVE ACTION TAKEN.                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                        |                                       |                  |                                                    |                 |      |
| HTDRAULIC-A/O<br>BUBTAINER/YERNIER                                                                         | LV-88-04-5014-7<br>VERMIER ACTUATOR ASSEMBLY                                                                                                                                                                                                                                                                                                                                                                                         | FAR<br>87-68315-605                                                                                    | 8048<br>860108                        | 7                | TES LIGHEL PACIFIC<br>NO                           |                 |      |
| FAILURE MOE-LEAK ENTERN<br>T MEAL.                                                                         | AK EKIERMAL-DURING PRE-PLIGHT CHECK-OUT ABOARD MISSILE 804-8, OLL WAS FOUND LEAKING PAST PISTON SMAF                                                                                                                                                                                                                                                                                                                                 | MRD MISSILE 804-9. C                                                                                   | 7                                     | MO LEAR!         | 46 Past P18704                                     | Ì               |      |

SENERAL BYNAMICS CONVAIR BIVISION

|   |                                                                                                                                       | DIFFICULTIES REVIEW-HYDRAULIC SYSTEM-AIRBORNE                                                                                                                                                                                                                                                                                                                                                                                                              | IULIC SYSTEM-AIRBOR                                                                                                                                  | ¥                                                |                                    |            |                                                                      |       |
|---|---------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|------------------------------------|------------|----------------------------------------------------------------------|-------|
|   | 8787EM<br>840-8797EM                                                                                                                  | TESTARFORT NUMBER<br>PAILED COMPONENT NAME                                                                                                                                                                                                                                                                                                                                                                                                                 | DIF DATA BOURCE<br>PART NUMBER                                                                                                                       | WENICLE<br>DATE DIF                              | 11 m 11 m                          | 2 5<br>2 6 | WENTELE SITE PRI VENDOR NAME<br>DATE BIP TIME BIP OTH VENDOR PAST NO |       |
|   | MYDRAULIC-A/B<br>BUSTAIMER/VERNIER                                                                                                    | SLY-80-04-5008-P<br>VERNIER ACTUATOR ASSEMBLY: BERVOVA 68-65311-1<br>LVE                                                                                                                                                                                                                                                                                                                                                                                   | FAR<br>60-05311-1                                                                                                                                    | 7104<br>880108                                   | 8-8 PALC VES 60/C                  | 58         | 50 / C                                                               | 1     |
|   | FAILURE MODE-OUT OF TOLES LUCTUATION OF A DOMMAND LOST LEADWIRES.                                                                     | OUT OF TOLERANCE-WULL VOLTAGE REPORTEDLY WAS OUT OF TOLERANCE. THE MULL SHIFT REPORTED WAS CAUSED BY<br>A DOMMMARD LOAD ON THE TARGET SCREW END OF THE ARMATURE RESULTING FROM CONTACT WITH THE TORBUE MOTOR                                                                                                                                                                                                                                               | REPORTEDLY WAS OUT OF TOLERANCE. THE MULL SHIFT REPORTED WAS CAUSED BY F<br>SCREW END OF THE ARMATURE RESULTING FROM CONTACT WITH THE TORSUE MOTOR C | FROM CONT                                        | FT REPORT                          | ë i        | AS CAUSED BY F<br>TORBUE MOTOR C                                     |       |
|   | CORECTIVE ACTION-VENDER ASSURE TORAUE NOTOR LEADS AD CHRONE PLATING THICKNES BECOME SLACK ENOUGH TO IN                                | CORRECTIVE ACTION-VENDER MAS REQUESIED TO ASSURE ASSY AND GUALITY CONTROL PROCEDURES AND TECHNIGHES ARE ADEAUATE TO<br>ASSURE TORGUE MOTOR LEADUIRES DO NOT CONTACT THE ARMYTHE, TARKET SCREW SEALS ARE NOT DANAGED AND FEEDBACK LEVER HA<br>RD CHROWE PLATING THICKNESS IS SUFFICIENT. CONVAIR PERSONNEL WERE REQUESTED TO ASSURE TORGUE NOTOR LEADUIRES DO NOT<br>BECOME SLACK ENOUGH TO INTERFERE WITH THE ARMATURE DURING PERFORMANCE OF SURVEY 97-84. | MLITY CONTACL PROCE<br>TARGET SCREW SEALD A<br>WERE REQUESTED TO A<br>FFORMANCE OF BURNEY                                                            | IDUMES AND<br>INE NOT DA<br>NESUME TOM<br>87-64. | TECHNERA<br>MAGES AND<br>GUE NOTON | 393        | TE ADEQUATE TO<br>JBACK LEVER MA<br>DWIRES DO NOT                    |       |
|   | MYDRAUL IC-A/B<br>SUSTAINER/YERMIER                                                                                                   | eta-4ett<br>Vernier bervo valve                                                                                                                                                                                                                                                                                                                                                                                                                            | UTP-PET<br>27-04209-1                                                                                                                                | <b>623099</b>                                    | <b>3/8</b>                         | ដ្ឋខ្      | CADILLAC GASE<br>CO<br>FC26-397A                                     |       |
|   | FALLURE MODE-OUT OF TOLES  5 MA. THE MAXIMUM PERHITTI                                                                                 | FAILURE MODE-OUT OF TOLERANCE-DURING POST 900,000 CYCLE LIFE PROOF CYCLE, THE MALL CURRENT WAS MEASURED AS PLUS 0.2<br>5 Ma. The Maximum Permitted is 0.20 Ma.Cause 79 DE DETERMINED BY FAILURE AMALYSIS AT WENDORS FACILITY.                                                                                                                                                                                                                              | PROOF CYCLE, THE I                                                                                                                                   | MALL CURRE                                       | MT WAS RE                          | 114.       | ED AS PLUS 0.E                                                       |       |
|   | HTORAULIC-ALIDNAL HORAULICANIER                                                                                                       | DAALICATE ACTION OF TO THE OFFICE AND THE SEPTEMBET SET -CTCTH NO. 556-7-046.  STATINGATURE STATING ASSEMBLY, POPPET SEAL ET-06556-5                                                                                                                                                                                                                                                                                                                       | CTH NO. 856-7-048.<br>UTP-PET<br>E7-08556-3                                                                                                          | 650212                                           | CONVAIR                            | 5 Q        | PEACOCK<br>51200-3                                                   | 5     |
|   | FAILURE MODE-LEAK INTERNA<br>S SUFFICIENT LEARAGE OF MY<br>RHOUM MAKIMUM, REF. TASK H                                                 | FAILURE MOE-LEAK INTERNAL. DURING POST TEMPERATURE PROOF CYCLE LEAKAGE NAS NOTED THROUGH THE -3 COUPLING. THERE NA<br>S SUFFICIENT LEAKAGE OF HYDRAULIC FLUID 30 THAT A HAND PUMP COULD NOTMAINTAIN A PRESSURE, RESUIRENTIS 18 18 DROPS PE<br>RHOUR NAXIMUM. REF. TASK HISTORY LOG NUMBERGGE-8-6-603 S/N 109-075E.                                                                                                                                         | CLE LEAKAGE WAS NO!<br>COLD HOTMAINTAIN A<br>075E.                                                                                                   | IED THROUG<br>PRESSURE.                          | A THE -S<br>REGULAÇÃ               | 50 1       | . ING. THERE MA<br>18 15 DROPS PE                                    |       |
|   | CORRECTIVE ACTION-TEST TE                                                                                                             | TERHINATED-VENDOR NOTIFIED TO IMPROVE HIS BUALITY VIA A VEAR.                                                                                                                                                                                                                                                                                                                                                                                              | HIS QUALITY VIA A                                                                                                                                    | VCAR.                                            |                                    |            |                                                                      |       |
| 9 | HTDRAUL IC-A/B<br>GUSTAINER/VERNIER                                                                                                   | Erastas<br>Sustainer actuaton, benews                                                                                                                                                                                                                                                                                                                                                                                                                      | UIP-PET<br>E7-06363-5                                                                                                                                | 113080                                           | y 9                                | 20         | LIONEL PACIFIC<br>R785-1                                             | ***** |
|   | FAILURE MODE-STRUCTURAL. FAILURE DURING PI<br>VIBRATION DUE TO INADERUATE LUCKNUT TESTEE<br>ADG-1082, REFER TO FAILURE LOG 662-3-007. | STRUCTURAL, FAILURE DURING PET X-AXIS VISRATION. THE ACTUATOR BODY ROTATED ABOUT THE FIRED END DURING. TO INADERUATE LOCKNUT TIGHTENING PROCEDURES AND PROBABLE INADERUATE LOCTITE APPLIED. TEST SPECIMEN S/N. ER TO FAILURE LOC 648-3-007.                                                                                                                                                                                                                | . THE ACTUATOR BOBY<br>PROBABLE INADEQUAT                                                                                                            | R LOCTITE                                        | ABOUT THE<br>APPLIED.              | ¥ 5        | ID END DURING<br>I SPECIMEN B/N                                      |       |
| • | CORRECTIVE ACTION-CLABS IN ADDITION A SHORT DET                                                                                       | TION-CLASS II CHAMGE WILL BE INSTITUTED TO ADD NOTE TO DRAWING TO ADD LOCTITE AND TORGUE REQUIREMENTS.<br>BHORT DET TEST WILL BE PROPOSED TO ESTABLISH OPTIMUM METHOD AND TYPE OF LOCTITE TO BE USED.                                                                                                                                                                                                                                                      | NOTE TO DRAWING TO                                                                                                                                   | ABD LOCTI                                        | LOCTITE AND TONGUE REG             | 33         | ageui agagate.<br>160 -                                              |       |

SCHERAL BYNAMICS CONVAIR BIVISION

9901 HAT 81

|                                                                                                                                 | DIFFICULTIES AEVIEW-MYDRAULIC BYSTEM-AIABORNE                                                                                                                                                                                                                                                                                                                                                                               | ULIC BYSTEN-AIRBORN                                        | _                                        |                                      |                                                        |   |
|---------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|------------------------------------------|--------------------------------------|--------------------------------------------------------|---|
| 81816<br>848-848                                                                                                                | TEST/REPORT NUMBER<br>PAILED COMPONENT NAME                                                                                                                                                                                                                                                                                                                                                                                 | DIF DATA SOURCE<br>PART NUMBER                             | WENICLE<br>DATE DIF 11                   | SITE PEL                             | VENDOR NAME                                            |   |
| HTDRAULIC-A/B<br>BUBTALHER/VERNIER                                                                                              | UTF-BLT<br>BUSTAINER ACTUATOR ABBTBPMERICAL B7-BB314-B17<br>BRG.                                                                                                                                                                                                                                                                                                                                                            | UTP-BLT<br>87-83314-817                                    | 09 018080                                | OH 3/09                              | VES LIGHEL PACIFIE                                     | : |
| FAILURE MODE-STRUCTURAL-<br>AD MOVED OUT APPROXIMATEL<br>/N 308-0071.                                                           | FAILURE MOE-STRUCTURAL-DURING THE EXTENDED DYMMIC CTCLING TEST THE OUTER RACE SURROUNDING THE FIXED END SEARING<br>AD MOVED OUT APPROXIMATELY 0.10 INCHES AT THE CONFLETION OF THE 19.000 CYCLES. REF. TASK MISTORY LOG NO. 862-9-006<br>/M 306-0071.                                                                                                                                                                       | TEST THE CUTER RACE<br>NE 18:000 CYCLES. R                 | EF. TABE HI                              | 6 THE F1KE<br>87087 LOG              | FINED END BEARING И<br>LOG NO. 862-4-006 В             |   |
| CORRECTIVE ACTION-PRESS<br>6, A MOTE WILL BE AGGED T<br>CAMUT, ROD END LOCRNUT, A<br>45,-042,-044,-045,-048,-0                  | CORRECTIVE ACTION-PRESS RACE BACK TO ORIGINAL POSITION AND CONTINUE TEST. TO PREVENT THE ACTUATOR BODY FROM ROTATIN<br>6, A MOTE WILL BE AGOED TO THE INSTALLATION AND ASSEMBLY DRAWINGS TO ADD REGUIRED TORGUE AND LOCTITE TO THE GLAND LO<br>CAMUT, ROD END LOCKMUT, AND TRANSDUCER LOCK SET RCREW. CHAMSE TO BE EFFECTIVE 650650. THIS ACTION IS FOR T.M.64E-7-0<br>4s,-04e,-044,-048,-048,-030,-032 AND 64E-6-001,-008. | DATIMUE TEST. TO PRINGS TO ADD REGULEE TO BE EFFECTIVE 65  | EVENT THE A<br>D TORBUE AN<br>OBSO. THIS | CTUATOR BO<br>D LOCTITE<br>ACTION IS | DY FROM ROTATIN<br>TO THE GLAND LO<br>FOR T.H. 662-7-0 |   |
| HTDRALLIC-A/B<br>SUSTAINER/VERNIER                                                                                              | ETAA187<br>BUSTAINER BERWO VALVE                                                                                                                                                                                                                                                                                                                                                                                            | U19-PE*                                                    | 05 013060                                | 40/C 1E8                             | CADILLAC GAGE<br>FCE8-388A                             | 3 |
| FALLURE MODE-OUT-OF-TOLE INFUT CURPENT, PHASE LAG SE LAG TOLERANCE UP TO 30 COMMENTER ACTION-1.8. T                             | FAILURE MODE-OUT-OF-TOLERANCE DURING PET INITIAL ACCEPTANCE TEST, THE PHASE LAG WAS EXCESSIVE AND SEMBITIVE TO THE INPUT CURPENT, PHASE LAG WAS LAG WAS 18.9 DEGREES AT G CPS (SPEC, IS IE DEGREES), SPECIMEN SAN 406-097E CONTINNED OUT OF PHASE LAG TOLERANCE UP TO 30 CPS. REFER TO PAILURE LOG 556-7-040.                                                                                                               | TEST, THE PRINSE CAN<br>BE DEGREES), SPECIM                | Mas EXCESS<br>Dr 8/N 404-                | 1VE AND BE<br>087E CONTI             | MAED OUT OF PHA                                        |   |
|                                                                                                                                 | S.T-80-04-3408-F<br>O-RING-VERHER ACTUATOR ASSY.                                                                                                                                                                                                                                                                                                                                                                            | FAR<br>E7-65512-608                                        | 7401 MTR<br>650200                       |                                      | YES LIGHEL PACIFIC                                     | • |
| FAILURE HODE-LEAK EXTERN<br>CAUSED BY A SUBSTANDARD,<br>LUME.                                                                   | FAILURE HODE-LEAK EXTERNAL-THE BERVOCYLINDER ABBY LEAKED HYDRAULIC OIL FABY THE ACTUATOR PIBTON BEALB. LEARAGE MAB<br>Caused by a bubstandard, worm, and damaged Pibton O-Ring Beal. Pelt Lubricator Buredding albo cominibued to Thib Fai<br>Lune.                                                                                                                                                                         | RAULIC OIL FAST THE<br>. PELT LUBRICATOR 8                 | ACTUATOR P                               | ISTON BEAL                           | .B. LEARAGE MAS                                        |   |
| CCHRECTIVE CTION-60/C C<br>BTALLED IN THEIR CLEAN RO                                                                            | CH-50/C CBIAINED YENDER CORRECTIVE ACTION. VENDER BTATED AN ILLUMINATED MAGNIFTING GLABB HAB BEEN IN<br>Clean Room. O-RINGB are inspected just before installation.                                                                                                                                                                                                                                                         | ACTION. VENDER BTATED AN ILLU<br>JUST BEFORE INSTALLATION. | MINATED MAS                              | 41771A                               | MI W328 BAN 488                                        |   |
| HYDRAULIC-A/B<br>BUSTAINER/YERNIER                                                                                              | LV-DB-04-5006-F<br>VERMIER ACTUATOR ADDENSLY, O-RING                                                                                                                                                                                                                                                                                                                                                                        | FAR<br>87-65318-608                                        | 190                                      | ij ĝ                                 | YES LIGHEL PACIFIC                                     |   |
| FAILURE MODE-CONTANINATION-VERNIER BERY<br>MANCE OF A HTDRAULIC STRIEN FILL AND BLE<br>NG BURFACE OF THE C-1 END PIRTON O-RING. | FAILURE MOE-CONTANIMATION-VERNIER BERYDCYLINDER ABBY LEAKED HYDRAULIC OIL AT AN ACTUATOR PIBTON BEAL DUNING PERFOR<br>Mance of a hydraulic bybien fill and bleed. Leakang was cauned by Piberb Prom THE Pelt Lubricator Bridsing THE beali<br>Ms bunface of THE C-1 END PIBTON O-RING.                                                                                                                                      | HTDRAULIC OIL AT A<br>D BY PIBERS PRON TH                  | N ACTUATOR                               | P1870H 8E4<br>1CATOR 84              | L DUTING PERFOR                                        |   |

GENERAL BYNAMICS CONVAIR BIVISION

9961 WAT 91

| BYSTEH                                                                                                            |                                                                                                                                                                                                                                                                                                                                           | DRAULIC SYSTEM-AIRSON DIF DATA SOURCE                                                                                   | VEHICLE                                 | 3716                            | Ē    | VENDOR NAME                             | -   |
|-------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|---------------------------------|------|-----------------------------------------|-----|
| BUB-STER                                                                                                          | FAILED COMPONENT NAME                                                                                                                                                                                                                                                                                                                     | PART NUMBER                                                                                                             | DATE DIF                                | 11ME 01F                        | ŧ    | OTH VEHDOR PART NO                      |     |
| CORRECTIVE ACTION-ECP<br>WITH TOP VISUAL QUALITY                                                                  | CORRECTIVE ACTION-ECP 3442-REPLACE FELT LUBRICATOR WITH TEFLON LUBRICATOR.<br>ITH TOP VISUAL QUALITY TIPE O-RINGS. REVISED LEARAGE CRITERIA.                                                                                                                                                                                              | EFLON LUBRICATOR. MES<br>ERIA.                                                                                          | NYE ALL HO                              | -86778 0-                       | 1    | REMOVE ALL MS-2077S C-RIMSS AND REPLACE | *** |
| MTDRAULIC-A/B<br>Sustainea/Vernier                                                                                | 6941950.5<br>SUSTAINER ACTUATOR ABBY, TUBE                                                                                                                                                                                                                                                                                                | UIP-9LT<br>E7-05314-017                                                                                                 | 60508                                   | <b>5/9</b>                      | 5 6  | 768 60/C<br>NO                          | **  |
| FAILURE MODE-STRUCTURA<br>TURED AT THE SINE FREGE                                                                 | UCTURAL-DURING SLT ROOM TEMPERATURE VIBRATION IN THE Y-AXIS; THE HIGH PRESSURE-11 TUBE ASSEMBLY RUP<br>FREGUENCY OF 15 CPS. REF. TASK HISTORY LOG NO. 862-8-002 8/N 304-0628.                                                                                                                                                             | TICH IN THE Y-AXIS: 1<br>06 NO. 662-8-00E 8/N                                                                           | ИК ИЗН РА<br>304-0628.                  | EssuaC-11                       | 2    | E ASSEMBLY RUP                          |     |
| CORRECTIVE ACTION-REPLACE THE TUBE<br>LL BE ADDED TO THE INSTALLATION AND<br>NO LOCKNUT AND TRANSDUCER LOCK SET 8 | CORRECTIVE ACTION-REPLACE THE TUBE ASSEMBLY AND CONTIMUE TEST, TO PREVENT THE ACTUATOR BODY FROM ROTATING A MOTE ME<br>Les added to the installation and assembly drawings to add required toneue and locitie on the bland lockmut, nod e<br>D Lockmut and Transducer Lock bet berew. This action is for 1.M. Bee-7-046047 and Bee-8-00E. | TEST. TO PREVENT THE ACTUATOR BODY FR.<br>BO REGUIRED TORGUE AND LOCKLITE ON THE<br>OR T.H. 662-7-046047 AND 862-8-002. | ACTUATOR 9<br>ID LOCTITE<br>17 AID 862- | CDV FROM<br>ON THE BL<br>8-008. | 20 A | TING A NOTE WE<br>LOCKHUT, ROD E        |     |
| HTDRALLIC-A/B<br>SUSTAINER/YERNIER                                                                                | 6841.50.4<br>Sustainer actuator assement                                                                                                                                                                                                                                                                                                  | UTP-SLT<br>87-85314-617                                                                                                 | <b>*02050</b>                           | <b>2</b> /9                     | 5 5  | YES LIGHEL PACIFIC                      | *** |
| FAILURE MODE-STRUCTURA<br>D 15 TO EG DEGREES WITH<br>308-0871.                                                    | FAILURE MODE-STRUCTURAL—AT THE COMPLETION OF BLT VIBRATION IN THE X-AXIS IT WAS FOUND THAT THE ACTUATOR BOOY AGTATE<br>D is to 20 degrees with respect to the actuator rod dids. Res. No rotation. Rep. Task mistory Los no. 842—8—201 S/H<br>308—0871.                                                                                   | N IN THE X-AXIS IT WE<br>RES. NO ROTATION. REF                                                                          | 16 FOUND TH                             | AT THE A                        |      | OR BOOT ROTATE                          |     |
| CORRECTIVE ACTION-REAL<br>DJUSTMENT WUT TO 100 F1                                                                 | CORRECTIVE ACTION-REALISM THE ACTUATOR BODY WITH THE ACTUATOR ROD ENDS AND METORALE THE LOCKINUT AND ROD END BLAND JUSTMENT WIT TO 100 FT-LBS. CONTINUE THE TEST.                                                                                                                                                                         | ATON NOD ENDS AND MET                                                                                                   | TORBUE THE                              | LOCKINUT A                      | 9    | CO END GLAND A                          |     |
| MYDRAULIC-A/B<br>BUSTATHER/YERMIER                                                                                | SSA1950.4<br>SUSTAINER ACTUATOR ASSENDLY, TUBE                                                                                                                                                                                                                                                                                            | UTP-8LT<br>C :7-05314-617                                                                                               | <b>690809</b>                           | 2/09                            | 20   | TES LIGHEL PACIFIC                      | **  |
| FAILURE MOE-STRUCTURA<br>F. TASK HISTORY LOG-NO.                                                                  | IUCTURAL-DURING THE BLT VIBRATION TEB! IN THE Y AKES THE MIGH PREBBURE-13 TUBE ABBENGLY RUPTURED. RE<br>.OG.NO. GGE-7-032 B/N 500-0071.                                                                                                                                                                                                   | THE Y AKEN THE HIGH I                                                                                                   | M688UR6-13                              | TUBE AB                         | ğ    | T RUPTURED. RE                          |     |
| CORRECTIVE ACTION-REP.                                                                                            | CORRECTIVE ACTION-REPLACE THE TUBE ABBENDLY AND CONTINUE TEST.                                                                                                                                                                                                                                                                            | 1687.                                                                                                                   |                                         |                                 |      |                                         |     |
| HIDRAULIC-A/B<br>BUSTAINER/VERNIER                                                                                | etalett<br>Vermier bervo valve                                                                                                                                                                                                                                                                                                            | UTP-PET<br>87-04209-1                                                                                                   | 6010.                                   | 3/08                            | 58   | CEDILLAC 648E<br>CO.<br>PCE6-367A       |     |
| FAILURE NODE-OUT OF TO                                                                                            | 'OF TOLERANCE-BURING LOW TENTERATURE TEST THE STANDSY PRESSURE WAS 50'T TO 850 PSIG. THE MINIMUM ALL<br>TO PSIG. CAUSED BY UMITALISTIC LOW TEMPERATURE REQUIRENEMY FOR PARTS PRYPARANCE.                                                                                                                                                  | THE STANDST PRESSURE<br>TURE RESULTENENT FOR                                                                            | Cuns of 1                               | O 680 PS                        | ÷    | ME HINIMUM ALL                          |     |
|                                                                                                                   |                                                                                                                                                                                                                                                                                                                                           |                                                                                                                         |                                         |                                 |      |                                         |     |

COMMECTIVE ACTION-IPECIFICATION TO BE REVISED FOR FOLLOW ON CONTRACT TO A MORE REALISTIC VA-UE OF PLUS 36 DESALES F

GENERAL DYNAMICS CONVAIR DIVIBION

111 104 1116

DIFFICULTIES REVIEW-HTDRAULIC SYSTEM-AIRBORME

|                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                   | Г                                                     |                                                                    |             |
|---------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|-------------------------------------------------------|--------------------------------------------------------------------|-------------|
| STATEN<br>SUB-STATEN                                                                                          | TEST/REPOST NUMBER FAILED COMPOMENT NAME                                                                                                                                                                                                                                                                                                                                                                                   | BIF DATA BOURCE<br>PART NUMBER                                    | VEHICLE SITE                                          | SITE PRI VENDOR NAME TIME BIP OTH VENDOR PART NO                   |             |
| . ALSO CUR. 4T CONTRACT S                                                                                     | SPECIFICATIONS NAY BE CHANGED IF APPL                                                                                                                                                                                                                                                                                                                                                                                      | IF APPLICABLE. REF-CTCTH                                          | REF-CTCTH NUMBER 886-7-037.                           |                                                                    | *****       |
| HTDRAULIC-A/B<br>BUBTAINER/VEWNIER                                                                            | NZ-90-04-4877-F<br>VERNIER TAW ACTUATOR, BERVO VAL'E                                                                                                                                                                                                                                                                                                                                                                       | FAN<br>27-8311-805                                                | 2110 WTR<br>650208                                    | TES LIGHEL PACIFIE                                                 | 7           |
| FAILURE MODE-ERRATIC OPE<br>O GUIDANCE STEERING AND F<br>T. REPORTED FAILURE MAS N<br>AND SERVOYALVE MAY HAVE | FAILURE MODE-ERRATIC OPERATION THE WE ENGING REPORTUDLY MENT TO YAM BIAS AT THE PROPER TING BUT FAILED TO RESPOND T<br>O GUIDANCE STEERING AND FAILED TO RETURN TO MULL WHEN THE PROGRAMMER RESET: ALTMONGN THE VI ENGINE RESPONDED MORMALL<br>T. REPORTED FAILURE WAS NOT CONFISHED. EXCESSIVE PARTICLE CONTANINATION FOUND IN FLUID SPECINEMS TAKEN FROM ACTUATOR<br>AND SERVOYALME MAY MANE CONTRIBUTED TO THE FAILURE. | I TO YAM BIAB AT TH<br>SCANNER REBET. ALT<br>STANINATION FOUND IS | FROPER TIME BUT<br>FOUCH THE VI EME<br>FLUID BPECIMEN | FAILED TO RESPOND T<br>ME RESPONDED MORNALL<br>TAREN FROM ACTUATOR |             |
| CORRECTIVE ACTION-NOT A SOMEL AT THE WIR AB IT W                                                              | COSECTIVE ACTION-NOT A CONFIRMED PAILURE-THE INFORMATION CONTAINED IN THIS AMALTSIS HAS RELAYED TO APPROPRIATE PER<br>Somel at the wir as it has obtained to provide urgently needed data for problem resolution.                                                                                                                                                                                                          | MATAINED IN THIS AN                                               | ALTSIS HAS RELATE<br>RESOLUTION.                      | D TO APPROPRIATE PER                                               | <del></del> |
| HYDRAULIC-A/B<br>BUSTAINER/YERNIER                                                                            | 88A1830.4<br>BUSTAINER ACTUATOR ASSEMBLY                                                                                                                                                                                                                                                                                                                                                                                   | UTP-8LT<br>27-05314-017                                           | 3/09 202058                                           | 765 LIONEL PACIFIC                                                 | 22          |
| FAILURE MODE-STRUCTURAL-                                                                                      | FAILUME MODE-STRUCTURAL-DURING THE BLT VIBPATION TEST IN THE Y-AXIS THE MICH PRESSURE-15 TURE ASSEMBLT RUPTURED. RE<br>. Task history Log No.662-7-050 8/N 308-0671.                                                                                                                                                                                                                                                       | T Y-ANIS THE MICH P                                               | Ksaume-18 Tuec /                                      | ASCIBLT RUPTURED. AC                                               |             |
| CORRECTIVE ACTION-REPLACE                                                                                     | OH-REPLACE THE TUBE ASSEMBLY AND CONTINUE TEST.                                                                                                                                                                                                                                                                                                                                                                            | ï                                                                 |                                                       |                                                                    |             |
| HTDRALLIC-A/B<br>BUSTAINE 4/VERNIER                                                                           | 8941950.4<br>SUSTAINER ACTUATOR ASSEMBLY                                                                                                                                                                                                                                                                                                                                                                                   | UTP-PRT<br>R7-65314-617                                           | 5/ <b>09 203069</b>                                   | TES LIGHE PACIFIC                                                  | •           |
| FAILURE MODE-OUT OF TOLE ED THE ALCOMBLE. REF. TA                                                             | OF IQLERANCE. DIMING PROOF CYCLE AFTER PRT TENPERATURE VIBRATION: THE PHABE LAS OF THE UNIT EXCEED REF. TASK HISTORY LOS MUNGER 556-7-055 B/M 508-0871:                                                                                                                                                                                                                                                                    | TEMPERATURE VIBRAT<br>308-C871.                                   | ION, THE PHANE L                                      | is of the unit exceed                                              |             |
| CORRECTIVE ACTION-CONTINUE BINE/RANDON VIBRATION. THE                                                         | CORRECTIVE ACTION-CONTINUE TEST. THE CAUSE OF THE ACTUATOR ASSENDLY FAILURE IS BUE TO THE FACT IT CAMBIDY WITHSTAND<br>INC/RANDON VIBRATION. THE UNIT REBUIRED REDESIGN TO WITHSTAND THE SINE/RANDON VIBRATION.                                                                                                                                                                                                            | ASSENDLY PAILUME IS<br>NO THE SIME/RANDOM                         | BUE TO THE FACT<br>VIBRATION.                         | IT CAMMOT WITHSTAND                                                |             |
| HTDRAULIC-A/B<br>BUSTAINCE/VERNIER                                                                            | SSAIBSLS<br>VELMIER ACTUATOR ABSTBRACKET                                                                                                                                                                                                                                                                                                                                                                                   | UTP-8. T<br>66-63311-1                                            | 2/05 102019                                           | VES LICHEL PACIFIC<br>NO                                           | :           |
| FAILURE MODE-STRUCTURAL-<br>MSIDE OF THE BHIELD MOUNT                                                         | FAILURE MODE-STRUCTURAL—AT THE COMPLETION OF THE Z AXIS OF BLT VIBRATION IT WAS NOTICED THAT THE MUT PLATE ON THE NSIDE OF THE BHIELD MOUNTING BRACKET HAD BROKEN. REP. TABE HISTORY LOS NO. 862-7-083 B/H 310-0009.                                                                                                                                                                                                       | BLT VIBRATION IT WA                                               | B NOTICED THAT TO<br>7-081 B/N 310-000                | HE HUT PLATE ON THE E.                                             |             |
| CORRECTIVE ACTION-NONE-CONTINUE TEBLING                                                                       | MITHUE 16811M6.                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                   |                                                       |                                                                    | <u> </u>    |

GENERAL BYNAHICS CONVAIR BIVISION

| 9961 807 61                                                                                                                                  | DIFFICULTIES REVIEW-MYDRAULIC SYSTEM-AIRBORNE                                                                                                                                                                                                                                                                                   | ULIC SYSTEM-AIRBORN                                               |                         |                     |          |                                                                      |                                        |
|----------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|-------------------------|---------------------|----------|----------------------------------------------------------------------|----------------------------------------|
| SYSTEM<br>SUB-SYSTEM                                                                                                                         | TEST/REPORT NUMBER<br>FAILED COMPONENT NAME                                                                                                                                                                                                                                                                                     | DIF DATA SOURCE<br>PART NUMBER                                    | WENICLE<br>DATE DIF     | 317E                | PRI VEN  | WENICLE SITE PRI VENDOR NAME<br>BATE DIF TIME DIF OTH VENDOR PART NO |                                        |
| HYDRAULIC-A/B<br>BUSTAINER/VERNIER                                                                                                           | UTP-BLT<br>VERHIER ACTUATOR ABBENBLY, BERVO V 69-65311-1<br>ALVE                                                                                                                                                                                                                                                                | UTP-1LT<br>60-65311-1                                             | 920501                  | 3/ <b>9</b>         | 7E8 LIG  | TES LIGHEL PACIFIC                                                   | :                                      |
| FAILURE MODE-FAILS TO GRE<br>IT FAILED TO GPERATE, THIS<br>MPLIFIER COULD NOT COMPENS                                                        | FAILURE MODE-FAILS TO CPERATE AT PRESCRIBED TIME. DURING BLT HIGH TEMPERATURE (240 DEGREES F VIBRATION TEST, TME UN<br>It failed to cperate. This failure was caused by the berno valve mull current bripted to a magnitude such that the A<br>Mplifier could not compensate, ref. Task History Log ND. 886-7-036 B/N 810-6009. | HIGH TEMPERATURE (<br>LVE MULL CURRENT BM<br>(7-036 B/M 810-0009) | 1240 DESPES             | S F VION            | ATION TO | THAT THE A                                                           |                                        |
| CORRECTIVE ACTION-TERNINA                                                                                                                    | CORRECTIVE ACTION-TERMINATE TEST. UNIT TESTED ABOVE DESIGN REGUIREMENTS.                                                                                                                                                                                                                                                        | Caulrements.                                                      |                         |                     |          |                                                                      |                                        |
| Mydaulic-a/b<br>Bustaineq/Vermier                                                                                                            | 69A1850.3<br>SUSTAINER ACTUATOR ASSEMBLY                                                                                                                                                                                                                                                                                        | C17-721<br>87-85314-817                                           | 080130                  | y <b>3</b>          | VES L10  | VED LIGHEL PACIFIC                                                   | i                                      |
| FAILURE MODE-STRUCTURAL-BURING PRT ROOM TEM<br>OD ENDS AT THE SINE VIBRATION FREQUENCY OF 21<br>TASK HISTORY LOG NO. 662-7-048 8/N 304-0428. | FAILUKE MOE-STRUCTURAL-DURING PRI ROOM TEMPERATURE VIBRATION IN THE T-AKIB THE ACTUATOR BEGAN MOTATING ABOUT THE R<br>OD ENDS AT THE SINE VIBRATION FREQUENCY OF 250 CPB. ALSO THE TRANSDUCER LOCK BET BOREN BACKED OFF 1 8-4 TURNS. REF.<br>TASK HIBTORY LOG NO. 662-7-048 B/N 304-0828.                                       | M IN THE Y-AXIS THE<br>TRANSDUCER LOCK BET                        | E ACTUATOR              | BEGAN RO<br>KED OFF | 1 1-4 1  | LACUT THE R<br>LANG. REF.                                            | ······································ |
| CORRECTIVE ACTION-REALIGN                                                                                                                    | CORRECTIVE ACTION-REALIGN ACTUATOR BODY RETORBUE AND BAFETY WIRE THE GLAND END LOCKNUT AND MOD END LOCKNUT TO 100 A<br>NO 50 FT-LBS RESPECTIVELY. TIGHTEN BETSCREW AND CONTINUE TESTING.                                                                                                                                        | WIRE THE GLAND DID<br>TING.                                       | LOCKINIT AI             | 0 MO C              | D LOCKIN | JT TO 100 A                                                          |                                        |
| HTDRAULIC-A/B<br>Bustaireq/Vernier                                                                                                           | UTP-PRT<br>BUSTAINER ACTUATOR ASSEMBLY, SET B 27-85314-817<br>CREW                                                                                                                                                                                                                                                              | UTP-PRT<br>27-85514-617                                           | 650130                  | <b>3/09</b>         | MD 434   | TES LICHEL PACIFIC 99629                                             | :                                      |
| FAILURE MODE-STRUCTURAL-C<br>UT 1 3/4 TUKNS, THIS MAS C<br>048 S/M 708-0871.                                                                 | FAILURE HODE-STRUCTURAL-DURING THE PRI VIBRATION TEST IN THE Y-AXIS THE PREDBACK TRANSDUCER LOCK SET SCREW BACKED O<br>UT 1 3/4 TUKHS, THIS MAS DISCOVERED AT THE COPPLETION OF THE Y-AXIS VIBRATION SMEEP, REF.TASK HISTORY LOS NO. GRE-T-<br>048 S/N 708-0871.                                                                | E V-AKIS THE PEEDBAC<br>Y-AKIS VISRATION SE                       | CK TRAMBOU<br>CEP. REF. | ER LOCK<br>MEK MIST | 9E7 5CR  | TV BACKED O<br>NO. 642-7-                                            |                                        |
| CORRECTIVE ACTION-REPOSE!                                                                                                                    | CORRECTIVE ACTION-REPOSITION THE TRANSDUCER AND TIGHTEN THE BET SCREW. CONTINUE TEST.                                                                                                                                                                                                                                           | BET BCREW. CONTINUE                                               | E TEST.                 |                     |          |                                                                      |                                        |
| MYDAAU.IC-4/8<br>Bubtainer/Vernier                                                                                                           | SUSTAINER ACTUATOR ASSEMBLY                                                                                                                                                                                                                                                                                                     | C17-721                                                           | 630130                  | <b>2</b> /9         | VES LIG  | VES LICHEL PACIFIC 896020                                            | :                                      |
| FAILURE MODE-STRUCTURAL-BURING FINE SUE CMOS THREE TIMES DURING THE SUE LOS MO. 662-7-047 8/N 304-0828.                                      | FAILURE MODE-STRUCTURAL-DURING PRI HIGH TENPERATURE VIBRATION IN THE N-AKIS THE ACTUATOR BODY ROTATED ABOUT THE ROD<br>ENDS THREE TIMES DURINS THE SHEEP. AFTER EACH ROTATION THE BODY WAS REALISHED AND TEST CONTINUED. REF. TASK HISTORY<br>LOG MO. 662-7-047 S/N 304-0828.                                                   | M IN THE K-AXIS THE<br>HODY WAS REALISHED A                       | L ACTUATOR<br>NO TEST C | BODY ROT            | A 20 A   | DUT THE ROD<br>NAK HISTORY                                           |                                        |
| COTRECTIVE ACTION-EACH RI<br>TO 100 AND 30 FT-LB RESPI                                                                                       | COTRECTIVE ACTION-EACH REALIGHING OF THE ACTUATOR BODY HAD THE GLAND END LOCKNUT AND THE ROD END LOCKNUT RETORANCES<br>To 100 AND 30 FT-LBS RESPECTIVELY, BOTH NUTS BAFETT WIRED.                                                                                                                                               | INE GLAND END LOCKIN                                              | JAT GMA TU              | 90 60               | LOCAMUT  | AC TON BUCO                                                          |                                        |

SCHERAL BYNAHICA CONVAIR DIVISION

18 354 1006

DIFFICULTIES REVIEW-HYDRAULIC SYSTEM-AIRDORNE

| 878TEN<br>848-875EN                                                           | TEST/AEPOAT MUMBER<br>FAILED COMPONENT MANE                                                                                                                                                                                                                                                        | DIF DATA BOUNCE<br>PART HUMBER                | WENICLE<br>DATE DIF     | 11 TIN 014 | DATE DIF TIME DIF OF MENDOR PART NO                                         |         |
|-------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|-------------------------|------------|-----------------------------------------------------------------------------|---------|
| HTDRAULIC-A/B<br>BUBTAIMER/VERNIER                                            | SEALESS.3<br>VERNIER ACTUATOR ASSEMBLY: BERVO V 60-65555-5<br>ALVE.                                                                                                                                                                                                                                | UTP-PRT<br>D V 60-61311-1                     | 041040                  | 3,3        | VES LIGHEL PACIFIC 604014                                                   | i       |
| FAILURE MODE-DUT OF<br>MO. 556-7-034 S/M 310                                  | OF TOLERANCE- BURING POST PRI TEST PROOF CYCLE THE UNIT BERNO VALVE PAILED. REF. TAM HISTORY LOS<br>310-0008.                                                                                                                                                                                      | F CYCLE THE UNIT BERY                         | O VALVE PA              | 1.EB. REF  | . TABK HIBTORY LOS                                                          |         |
| CORECTIVE ACTION-CO                                                           | ON-CONTINUE TEST, THE UNIT NOT PUNCHABED TO NEET SINE/RANDON VIBRATION, REDESIGN RESULRED TO MEET TH                                                                                                                                                                                               | TO NEET SINE/RANDON V                         | IBRATION.               | REDEBIEN   | REGUIRED TO MEET TH                                                         |         |
| HYDRAULIC-A/B<br>SUSTAINER/VERNIER                                            | LV-56-10-274F<br>Puse 3EAL                                                                                                                                                                                                                                                                         | FAR<br>87-06580-3                             | 15-60                   | CTA        | VER VICKEAS<br>NO AA-80410-L-P                                              | ••• 101 |
| PAILURE MODE-LEAK-EXTERNAL SEEPAGE B<br>T FLAMGE PRESSURE- SENSING PORT SEAL. | PAILURE MODE-LEAR-EKTERNAL SEEPAGE BETHEEN THE OUTLET FLAMEE AND MOUBING CAUBED BY A POOR INSTALLATION OF THE OUTLE<br>I FLAMGE PRESSURE- SENSING PORT SEAL.                                                                                                                                       | NNEE AND HOUBTHE CAUR                         | 8 4 7 8                 | OR 11457AL | LATION OF THE OUTLE                                                         |         |
| CORRECTIVE ACTION-FA                                                          | CORRECTIVE ACTION-FAILURE NOT CONFINED. BONE DEPIN ON QUILET FLANCE FLAGEED TO INDURE CONFLIANCE MITH BLUEPRINT.<br>MOOR TO INSURE PROPER PHICANESS OF TEFLON RINGS.                                                                                                                               | UTLT PLANCE PLAGED                            | TO INDUME               | COMPLIANC  | E WITH BLUEPRINT. V                                                         |         |
| HYDRAULIC-A/B<br>SUSTAIMER/VERNIER                                            | 69A1850.3<br>SUSTAINER ACTUATOR ABNEMBLY                                                                                                                                                                                                                                                           | UIP-PAT<br>87-65514-617                       | <b>62</b> 10 <b>60</b>  | 3/03       | YES 60/C                                                                    | 9       |
| FAILURE MODE-STRUCTU<br>EMDS 5 TO 10 DEGREES.<br>ED. RFF. TASA HISTORY        | FAILUME MODE-STRUCTURAL-DURING PAY LOW YEMPERATURE VIBRATION IN THE 2-AXIS THE ACTUATOR BODY MOTATED ABOUT THE MOD<br>ENDS 5 TO 10 DEGREES. ROTATION HAS DUE TO A LOOSE LOCANUT ON THE FIXED MOD END. ALBO TRAMBDUCER LOCK BETSCAEN LOOSE<br>ED. REF. TASA HISTORY LOG NO. 842-7-043 B/N 308-0871. | TICN IN THE Z-AXIS TH<br>ON THE FIXED ROD END |                         | BODY ROT   | ACTUATUR BODY ROTATED ABOUT THE ROD<br>ALBO TRANSDUCER LOCK RETECREM LODGEN |         |
| .JAMESTIVE ACTION-RE<br>AND SAFETT MIRE, TIE                                  | CHRECTIVE ACTION-REALIGH THE ACTUATOR BOOK MITH THE ACTUATOR BOD ENDS AND METORBUE THE ROD END LOCKHUIT TO SOFT-LES IND. AFFETT WIRE, TIGHTEN SETECREM, CONTINUE TEST.                                                                                                                             | MICH NO ENDS AND NE                           | TORBUE THE              | NOD END    | LOCIUMIT TO SOFT-LES                                                        |         |
| MTDGALLIC-A/B<br>BUSTAIMER/VLOMILE                                            | 69A1950.4 UIP-PRT<br>SUSAINER ACTUATOR ABBENDLY, BET 8 EY-83314-617<br>CREW                                                                                                                                                                                                                        | UTP-PRT<br>T & RT-83514-817                   | <b>99</b> 11 <b>090</b> | ) <b>3</b> | 7 <b>68</b> 80/C                                                            | •••••   |

FAILURE MOSE-BIRUCTUMAL-DUAING THE PAT VIBRATION TEST IN THE 2-ARIB THE PEEDBACK TRANSBUCER LOCK BETBENED BACKED ON T 1 1/2 TUTNS. REF. "ARK HISTORY LOS NO. 888-7-048 B/N 308-0871.

CONSECTIVE ACTION-REPORTITION THE TRANSDUCER AND TIGHTEN THE BET BCREW. CONTINUE TEST.

SENERAL DYNAMICS CONVAIR BIVIBION

18 JUN 1986

| MD: GAG                                                                                          | TESTARFORT NUMBER DIF DATA SOURCE W                                                                                                                                                                                                      | DIF DATA SOURCE                            | WHICLE                                                     | 3116        | 1           | WENICLE SITE PRI VENDOR NAME |       |
|--------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|------------------------------------------------------------|-------------|-------------|------------------------------|-------|
| MTDAAULIC-A/B<br>BUSTAINER/YERNIER                                                               | SPAROIL.E<br>STACING DISCOMECT                                                                                                                                                                                                           | U19-BLT<br>87-0658-1                       |                                                            | CORVAIR     | 9           | PEACOCK<br>B1205-1           |       |
| FAILURE MODE-STRUCTURAL-DURING DENA-<br>TORY LOG MO. 662-7-043 8/N 110-1152.                     | FAILURE MODE-STRUCTURAL-DURING DEMATED BLT VIBRATION BMEEP THE BEAL TAB ON THE BAPETY WIRE BROKE OFF, REF. TABA MIS<br>ORY LOG NO. 462-7-043 8/N 110-1152.                                                                               | THE BEAL TAB ON THE                        | BAPETY VI                                                  | AE BACKE    | 8           | MEP. TABA M18                |       |
| CORRECTIVE ACTION-NOME.                                                                          | CORRECTIVE ACTION-WOME, UNIT TESTED ABOVE SPECIFICATION REQUIREMENTS.                                                                                                                                                                    | UIRENENTS.                                 |                                                            |             |             |                              |       |
| HYDRAULIC-A/B<br>SUSTAINER/VERNIER                                                               | SSAISSO.4<br>SUSTAINER ACTUATOR ASSEMBLY, TUBE                                                                                                                                                                                           | UTP-PRT<br>87-05314-017                    | 981069                                                     | <b>3/93</b> | 763 L<br>80 | TES LIJHEL PACIFIC           | 1     |
| FAILUME MODE-STRUCTURAL-DURING THE PRT VIBRATION F. TASK HISTORY LOG MO. GCE-7-044 9/N 306-0671. | FAILUME MODE-STRUCTURAL-DURING THE PRT VIBRATION TEST IN THE 2-AXIS THE MIGH PRESSURE-11 TURE ASSEMBLT RUFTURED, RE<br>. Task mistory Log No. 642-7-044 S/N 308-0671.                                                                    | E 2-AXIS THE HIGH PI                       | i I-Janee Ji                                               | TUBE AS     | 100         | RUFTURED. AE                 |       |
| CORRECTIVE ACTION-REPLACE                                                                        | COARECTIVE ACTION-REPLACE THE TUBE ASSEMBLY AND CONTINUE TEST.                                                                                                                                                                           | .10                                        |                                                            |             |             |                              |       |
| HTD4AULIC-A/8<br>Sustainer/Vernier                                                               | 69A1930.4<br>SUSTAINER ACTUATOR ABBENGLY, PLEED ET-85314-617<br>ACK TRANSDUCER                                                                                                                                                           | UTP-PRT<br>27-05314-017                    | <b>98</b> 01 <b>89</b>                                     | <b>3/03</b> | 427         | YES LIGHEL PACIFIC           | ***** |
| FAILURE M.DE-STRUCTURAL-DURING THE P. BTORT LOW NO. 642-7-044 B/N 308-0871.                      | FAILURE N.DE-STRUCTURAL-DURING THE PRT VIBRATION TEST IN THE 2-AXIS THE FEEDBACK TRANSDUCER UNS LOOSE. REF. TASK MI<br>Tort Log No. 662-7-044 S/N 308-0671.                                                                              | E 2-AXIS THE FEEDBA                        | CA TRANSOL                                                 | KER MAS     | .900f.      | REF. TASK HI                 |       |
| CORRECTIVE ACTION-SCREM IN FEEDBACK TRANSDURED UP BY THE SET SCREW LOCK. CONTINUE TEST.          | COMRECTIVE ACTION-SCREW IN PREDBACK TRANSDUCER UNTIL IT BOTTONS, THEN BACK IT OUT UNTIL FIRST LOCK NOTCH CAN BE PIC<br>ED UP BY THE SET BCREW LOCK, CONTINUE 1EST.                                                                       | TONS: THEN BACK IT                         | OUT UNTIL                                                  | F1887 LG    | ČE BO       | CH CAN BE PIC                |       |
| HYDRAULIC-A/D<br>BUBTAINER/VERNIER                                                               | SPAIDSO-4<br>SUBTAINER ACTUATOR ASSEMBLY                                                                                                                                                                                                 | UTP-PAT<br>87-65314-617                    | 480167                                                     | 3/ <b>9</b> | 5 3         | ME LIGHEL PACIFIC 884838     | •     |
| FAILURE MODE-BTRUCTURAL-<br>PECT TO THE ACTUATOR ROD                                             | FAILURE MODE-BIRUCTURAL-DURING THE PRI VIBRATION BUEEP IN THE R AXIB THE BODY OF THE ACTUATOR BODY ROTATED WITH REB<br>Pect to the actuator rod emds. Rebuired-no rotation ref. Taba Histe <sup>ny</sup> Los no. 842-7-842 B/N 508-0871. | HE X AXIS THE SCOT .<br>A HISTOT LOG NO. 6 | 800Y OF THE ACTUATOR BOOT R<br>NO. 842-7-642 B/N 508-6871. | 704 TOR BC  | 07 BO       | ATED WITH RED                |       |
| CORRECTIVE ACTION-REALISM THE ACTUATO<br>T BUT TO LOOFT-LOS. COMISMUE THE TEST.                  | COMMENTIVE ACTION-REALISM THE ACTUATOR BODY WITH THE ACTUATOR ROD ENDS AND RETORGUE THE LOCKNUT-END SLAUDINEN<br>BUT TO 100FF-LBS. COMFRAGE THE TEST.                                                                                    | OF RCD ENDS AND RET                        | Dieug Thg                                                  | LOCKINUT    | 8           | AND ASJUSTNEN                |       |
|                                                                                                  |                                                                                                                                                                                                                                          |                                            |                                                            |             |             |                              |       |

>

GENERAL DYNAMICS CONVAIR BIVISION

18 JUN 1866

DIPETCIALIES REVIEW-HYDRAULIC PISTEN-AIRBORNE

|                |                                                                                                                                                                    | DIFFICIALIES ACVICA-HYDRAULIC PISTEN-ASREGAME                                                                                                                                                                                                                                                                                                                                                                                                                                    | AULIC PIBLEN-ASBECK                                                                                                                                    | <b>4</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                           |                                       |                                                                   |   |
|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|---------------------------------------|-------------------------------------------------------------------|---|
| ·              | 3731EN<br>308-373TEN                                                                                                                                               | TEST/REPORT NUMBER<br>FAILED COMPOMENT NAME                                                                                                                                                                                                                                                                                                                                                                                                                                      | DIF DATA BOURCE<br>PART MUNDER                                                                                                                         | VEHICLE<br>DATE DIF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 817E<br>71ME 01F                          | 3 X 0                                 | WENICLE BITE PRI VENDON NAME BATE BIF TIME BIF OTH VENDOR PART NO |   |
| 1 <del>-</del> | HYDRAIL IC-A/B<br>BUSTAINER/VERNIER                                                                                                                                | 68A1950.3<br>BUSTAINER ACTUATOR ASSEMBLY                                                                                                                                                                                                                                                                                                                                                                                                                                         | UTP-PAT<br>R7-05314-017                                                                                                                                | •301 <b>8</b> •                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 3/ <b>3</b>                               | 7 G                                   | VER LIGHEL PACIFIC                                                | : |
|                | FAILURE MOGE-STRUCTURAL-E<br>TO THE LCTUATOR ROD ENDS.                                                                                                             | FAILURE MOCE-STRUCTURAL-DURING THE PRT VIBRATION SNEEP IN THE Y AXIS THE BODY OF THE ACTUATOR TO THE ACTUATOR TO THE ACTUATOR TO THE ACTUATOR ROD ENJS. RES. NO ROTATION. REF. TASK HISTORY LOG NO. 642-7-041 S/N 308-0671.                                                                                                                                                                                                                                                      | HE T AXIS THE BODY (<br>Y LOG NO. 842-7-041                                                                                                            | DF THE ACT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | _                                         | 14160 1                               | ROTATED WITH RESPECT                                              |   |
|                | COPECTIVE ACTION-REALISM THE ACTUATOR BOT TWENT NUT TO 100FT-LBS. CONTINUE THE TEST.                                                                               | COPRECTIVE ACTION-REALISM THE ACTUATOR BODY MITH THE ACTUATOR ROD ENDS AND RETORBUE THE LOCKMUT ROD-END GLAND ABJUS<br>Ment nut to 100Ft-lbs. Continue the 1881.                                                                                                                                                                                                                                                                                                                 | OR ROD ENDS AND PET                                                                                                                                    | Dreue The                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | LOCKHUT                                   | NOD-EN                                | SULAND ACTUS                                                      |   |
|                | HYDRAULIC-A/D<br>BUBTAINER/YERNIER                                                                                                                                 | 69A1931.3<br>VERHIER ACTUATOR ABBEMBLY, FEEDBAC<br>K. TRANDOUCER                                                                                                                                                                                                                                                                                                                                                                                                                 | UTPRT<br>80-63311-1                                                                                                                                    | 91010                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <b>3/93</b>                               | 20                                    | TES LICHEL PACIFIC GRESS                                          | : |
|                | FAILURE MODE-OUT OF TOLES<br>D TO BE 0.000 VOLTS. REG.                                                                                                             | OF TOLERANCE- DURING POST PRT VISRATION PROOF CYCLE THE FEEDBACK TRANSDUCERS MALL VOLTAGE HAS FOUNTS. RES. IS 0.050 V MAK. REF. TASK HISTORY LOS NO. 556-7-038 S/W 310-0009.                                                                                                                                                                                                                                                                                                     | OOF CYCLE THE PEEDS<br>LOS NO. 556-7-033 &                                                                                                             | ACK TRANSD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | UCERS MU                                  | ו גע                                  | TAG INS FORM                                                      |   |
|                | CORRECTIVE ACTION-ABJUST                                                                                                                                           | CORRECTIVE ACTION-ADJUST THE TRANSDUCER TO HINIMM MALL WOLTAGE MITH THE ACTUATOR POSITIONED AT MECHANICAL MALL POSITION AND CONTINUE TEST.                                                                                                                                                                                                                                                                                                                                       | TAGE MITH THE ACTUA                                                                                                                                    | 104 POS.11                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | CHES AT                                   | MECHAN                                | ICAL MULL POS                                                     |   |
| L              | HTGHAULIC-A/B<br>BUSTAINER/VERNIER                                                                                                                                 | LV-19-04-5009F<br>VERNIER ACTURIOR, O-RING                                                                                                                                                                                                                                                                                                                                                                                                                                       | FA4<br>E7-06573-3                                                                                                                                      | 931069                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | FACTORY                                   | 50                                    | YES LIGHEL-PY:1FIC                                                |   |
|                | FAILURE MODE-LEAK EXTERNA<br>PTANCE 1837 HER EGF 305-11<br>HEM O-RINGS MERE RUBBLD AG                                                                              | FAILIME MODE-LEAK EXTERMAL-VERMIER ACTUATOR REPORTEDLY LEAKED HYDRAULIC OIL AY BOTH ENDS DIAING PERFORMANCE OF ACCE<br>PYANCE IEST PER EGF 305:10 PARAGRAPH 5:8-1: LEARAKE WAS CAUSED BY WORN PISTON BEAL O-RIMS. O-RIMS DANAUE RESULTED W<br>HEN O-RIMSS WERE RUBBLD ACROSS MEAR MARKS IN THE CYLINDER BORE DURIMS ACTUATOR OPERATION:                                                                                                                                          | ED HTDRAULIC OIL AT BOTH ENDS DIRING PERFORMANCE OF ACCE.<br>ED BT WORN PISTON BEAL O-RINGS, O-RING DANAGE RESULTED W<br>RE DURING ACTUATOR OPERATION. | <b>В</b> ОТИ ЕНВЗ<br>EAL O-RING<br>OPERATION.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | DIAINE<br>8. O-RIN                        | FERFORI                               | MANCE OF ACCE<br>SE RESULTED W                                    |   |
| ·              | CORRECTIVE ACTION-LIGHEL-PACIFIC ADDED A R PISTON AND CTLINDER BORE STRAIGH MESS.                                                                                  | NILIONEL-PACIFIC ADDED A NOTE TO THE SHOP T<br>NDER BORE STRAIGH HESS.                                                                                                                                                                                                                                                                                                                                                                                                           | NOTE TO THE BHOF TRAVELLER TO ASSURE INSPECTIONS ARE MADE CHECKING ACTUATO                                                                             | INDECTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | A 746 M                                   | 30                                    | CAING ACTUATO                                                     |   |
|                | HYDRAULIC-A/B<br>BUBTAINER/VERNIER                                                                                                                                 | SLY-89-04-3032-F<br>VERNIER BERVO VALVE                                                                                                                                                                                                                                                                                                                                                                                                                                          | FAR<br>87-04208-1                                                                                                                                      | 931069                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | PACTORY                                   | 3 3                                   | TES CADILLAC GASE<br>NO FCES-387A                                 |   |
| #              | PILURE MODE-OUT OF SPECIFICA<br>MCE OF ECP 305-10. CAUSE FOR 7<br>HOZZLE TIP DAMAGE-FLATTENING<br>THE SIGNAL IS APPLIED TO THE S<br>LITT FOR THIS TIPE OF PAILURE. | FILLUNE MODE-OUT OF SPECIFICATION-FACTORY PERSONNEL REPORTED THE SERVOVALVE MAD EXCESSIVE PHASE LAS PURING PERFORMA MC OF ECT 305-10. CAUSE FOR THE ANOMALY MAS ISOLATED TO THE SERVOVALVE CRADLE ASSENDET AND IS ATTRIBUTED TO CONTROL MOZZLE IT DAMANC-FLATTENING DUE TO TARGET SCHEW INFRACT, CONTROL MOZZLE AND TARGET SCHEW CONTROL OCCURS WHEN A CYCLING SIGHAL IS AFFLED TO THE SERVOVALVE IN THE ASSENCE OF WYDRALLIC PRESSURE, IT IS NOT POSSIBLE TO AFFILE REPONSIBLE. | D THE BERNOVALVE MAI<br>BERNOVALVE CRADLE.<br>MIRCL MOSELE AND TA<br>DRAULIC PREBBURE. I                                                               | D EXCESSIVASSEMELY ASSEMBLY AS | E PASE<br>NO 18 AT<br>CONTACT<br>COSSIBLE | 14.18.01<br>0.000<br>10.000<br>10.000 | AING PERFORMA<br>ED TO CONTROL<br>S WEEN A CYCL<br>LK RESPONSIBL  |   |
|                |                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                           |                                       |                                                                   |   |

CORPECTIVE ACTICM-PO CONNECTIVE ACTION TAKEN.

GENERAL DINANICS CONVAIR DIVISION

19 10M 1960

į

Contract Contract

|                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                         |                                                                                          |                                                 |                                                      |                                                                 | _                                      |
|--------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|-------------------------------------------------|------------------------------------------------------|-----------------------------------------------------------------|----------------------------------------|
| HYDHAULIC-A/B<br>BUDTAINER/VERNIER                                                                                                         | CT-88-04-200<br>ACTUATOR ASSEMBLY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | FAR<br>27-35314-019                                                                                                     | 9911                                                                                     |                                                 | 7E\$ L10W                                            | YES LIGNEL-PACIFIC                                              | •                                      |
| FALLURE MODE-LEAK-EX<br>ACTUATOR SHAFT INDICA<br>IC SEAL BECAUSE OF SC<br>ED BY INSERTION OR RE<br>THE END GLAND, BUT TO<br>BE DETERMINED. | FAILURE MODE-LEAR-EXTERMAL. DURING SUMVEILLANCE INSPECTION, MYDRAULIC FLUID MAS FOUND IN THE END MOUSING AROUND THE ACTUALOR SHAFT INDICATING LEARAGE. THE FAILURE MAS CONTRINED AND MAS DUE TO LEARAGE AROUND THE CLEVIS END GLAND STATIL IS SEAL BEALVIS OF SCRATCHES IN THE BEALX SEAL SEAL OF THE ACTUATOR BODY. THE BERATCHES MERE CAUS ED BY INSERTION OF REMOVAL OF THE ACTUATOR CLEVIS END GLAND, THE TEFLOW BACK-UP RING MAS SHEARED DURING INSERTION OF THE END GLAND, BUT THIS PROBABLY DID NOT AFFECT THE LEARAGE CONDITIONS. RESPONSIBILITY FOR THE BERATCHES COULD NOT BE DETERMINED. | FIND AND IN BOT TO LEAD AND AND AND TO LEAD AND IN BOT TO LEAD AND TO LEAD AND THE TELLON BACK-UP IT CONDITIONS. RESPON | FOUND IN<br>KASE ANOUG<br>CTUATOR BC<br>RING MAS<br>SIBILITY F                           | THE END .<br>THE CLI<br>DOY. THE I<br>SHEARED E | HOUSING ALL<br>EVIS END -<br>BCRATCHES<br>DUTING INC | ACUMO THE<br>GLAND BTAT<br>WERE CAUS<br>SERTION OF<br>COULD NOT | ************************************** |
| CORRECTIVE ACTION-NO<br>ITA CAUSE.                                                                                                         | IICH-NO CORRECTIVE ACTION. CONVAIR OMERHAUL PERBONNEL AND THE WENDUR MERE INFORMED OR THIS FAILURE AND                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | ERBONNEL AND THE WEN                                                                                                    | DUR MERE I                                                                               | MONED (                                         | 7 TMI 9.                                             | ALLME AND                                                       |                                        |
| MYDGAULIC-A/B<br>BUSTAINER/VERNIER                                                                                                         | 69A1951.3<br>VERNIER ACTUATOR ASSEMBLY, PROBE B<br>RACRET                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | UTP-PRT<br>B 00-01311-1                                                                                                 | 690119                                                                                   | <b>3/9</b>                                      | 7E8 LION                                             | TES LIGHEL PACIFIC                                              | i                                      |
| FAILUME MODE-STRUCTU<br>ERFOMED BECAUSE THE<br>OF MO. 862-7-035 S/M:                                                                       | FAILUME MODE-STRUCTURAL-DURING POST PRT VIBRATION TEST PROOF CYCLE THE FESTY.CA TRANSDUCER MAL TEST COULD NOT BE P<br>ERFONED BECAUSE THE TRANSDUCER PROBE HOLDING BRACKET BECANE LOOSE FROM THE ACTUATOR PISTON ROD. REF. TASK HISTORY L<br>OG MO. 842-7-035 \$7M 310-0009.                                                                                                                                                                                                                                                                                                                        | OF CYCLE THE PESTY NG<br>IE LOOSE PROH THE ACT                                                                          | PESYTICA TRANSDUCER MALL TEST COULD NOT BE<br>THE ACTUATOR PISTON ROD. REF. TASK HISTORY | ER MALL TON ROD. N                              | IEST COUL                                            | D NOT BE P                                                      |                                        |
| COSECTIVE ACTION-HO<br>JUSTED TO HIMMH WALL<br>E ADDITION WILL BE MA                                                                       | COSECTIVE ACTION-HOME-IME PROBE BRACKET HOLDING SCREMS MERE RETORGUED AND SAFETY WIRED AND THE PROBE POSITION READ<br>Justed to minimam mall valiage and them continue testing. Torque Requirenents to be added for screws on 68-63511. The eadering mill be made as a class 11 componnance change.                                                                                                                                                                                                                                                                                                 | RE RETORBUED AND SAF!<br>ORBUE REGUINENENTS T                                                                           | ETY WIRED<br>O BE ADOED                                                                  | AND THE !<br>FOR BCRE                           | MOSE POS.                                            | 1710W READ<br>-05511. TH                                        |                                        |
| HTDGAULIC-A/B<br>Sustainer/Vernier                                                                                                         | 69A1951-4<br>VERHIER ACTUATOR ASSEMBLY, BERVO V 69-65511-1<br>ALVE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | UIP-PRT<br>V 60-65511-1                                                                                                 | <b>6</b> 5011 <b>0</b>                                                                   | 2)9                                             | 7E3 L104                                             | YES LIGHEL PACIFIC NO                                           | •                                      |
| FAICURE MODE-STRUKTUS<br>AND OVER. THIS MAS CAN<br>N 404-0842.                                                                             | ITRUCTURAL-DURING PRT VIBRATION SHEEP IN THE Y-AXIS AT A SIME PREQUENCY OF BOD CPS THE ACTUATOR NENT H<br>WAS CAUSED BY A CRACKED SERVO VALVE COLL WHICH CREATED AN OPEN. REF. TASK HISTORY LOS NO.SSG-F-DSS S.                                                                                                                                                                                                                                                                                                                                                                                     | Y-AXIS AT A SINE FRE<br>CM CREATED AN OPEN. I                                                                           | BUENCY OF<br>REF. TASK                                                                   | 800 CP8 1<br>H1870RY L                          | THE ACTUA<br>.06 NO.33                               | 800 CPB THE ACTUATOR MENT H<br>HISTORY LOS NO.536-7-031 S/      |                                        |
| COTRECTIVE ACTION-TEL                                                                                                                      | ION-TEST FERMINATED. TEST CONDUCTED MITH SINE/RANDON VIBRATION. ING UNIT WAS NOT PURCHASED TO MEET REDESTOR RESULTS.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | WITH BINE/RANDON VIBRAIION. '                                                                                           | THE UNIT Y                                                                               | W 101                                           | MCHASED                                              | TO MEET TH                                                      |                                        |
| HYDRAULIC—A/D<br>Bubtalngryvgrnigr                                                                                                         | 6PA1951.8<br>VERNIER ACTUATOR ABBENGLY, BRACKET                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | UTP-PAT<br>T 80-01311-1                                                                                                 | 911040                                                                                   | y/98                                            | VE& L100                                             | YES LIGHEL PACIFIC NO.                                          |                                        |

SENERAL BYNAMICS

| 3                |  |  |
|------------------|--|--|
|                  |  |  |
| MOISTAID NIVANOU |  |  |
| _                |  |  |
|                  |  |  |
|                  |  |  |
|                  |  |  |

| STRIEN<br>SUB-STSTEN                                                         | TEST/REPORT HUMBER FAILED COMPONENT NAME                                                                                                                                                                                                                                                                                                   | DIF DATA BOURCE<br>PART NUMBER                  | WEHICLE<br>DATE DIF                                         | 11 ME D1F             | # E          | TINE BIP OTH VENDOR PART NO              |     |
|------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|-------------------------------------------------------------|-----------------------|--------------|------------------------------------------|-----|
| COARECTIVE ACTION-NONE-CONTINUE TESTING.                                     | 4-CONTINUE TESTING.                                                                                                                                                                                                                                                                                                                        |                                                 |                                                             |                       |              |                                          | •   |
| HTDRAULIC-A/B<br>BUSTAINER/VERNIER                                           | 60A-AP285-908/81-408-00-188<br>3USTAINER PUMP, CUMPENSATOR                                                                                                                                                                                                                                                                                 | FLICHT<br>87-08580-3                            | 11069                                                       | 0.                    | 5 9          | VES VICKENS<br>NO                        |     |
| FAILURE MODE-ERRATIC                                                         | RATIC OPCRATION, NIMOR HUNTIME CHARACTERISTICS EIMIBITED BY SUBTAINER HYDRAULIC PUMP COMPENSATOR.                                                                                                                                                                                                                                          | STICS EIMIBITED DT SW                           | TAINER HT                                                   | MAULIC P              | ¥ 5          | DIPERSATOR.                              |     |
| SYSTEM EFFECT-ERRATIC                                                        | ERRATIC OPERATION, HYDRALLIC PRESSURE OSCILLATIONS MERE LARGER THAN HORMAL AT EMSIM<br>ITISON (330 PSI P-P), AND DURING BUSTAINER PHASE (SKALL INTERRITTENT OSCILLATIONS).                                                                                                                                                                 | LLATIONS WERE LARGER PRABE                      | LARGER THAN NORMAL AT ENGINE<br>INTERMITTENT OSCILLATIONS). | AT ENE!               |              | START (200 PSI P                         |     |
| VEHICLE EFFECT-NOME.                                                         |                                                                                                                                                                                                                                                                                                                                            |                                                 |                                                             |                       |              |                                          |     |
| CORRECTIVE ACTION-NOME.                                                      | į                                                                                                                                                                                                                                                                                                                                          |                                                 |                                                             |                       |              |                                          |     |
| HTDRAULIC-A/B<br>SUSTAINER/VERNIER                                           | PZALER SERVO VALVE                                                                                                                                                                                                                                                                                                                         | UTP-PET<br>27-04209-1                           | 690106                                                      | 3/ <b>03</b>          | 163          | CADILLAC <b>GAGE</b><br>CO.<br>FC28-387A | *** |
| FAILURE MODE-OUT OF TO<br>EES AND AT 15 CPS, 23.5<br>AUSED UT DEGRADATION OF | FAILUKE MODE-OUT OF TOLERANCE-DURING 19PT THE PHASE LAG WAS AS FOLLONS AT & CPS, 10.0 DEGREES, AT 10 CPS, 10.0 DEGREES AND SESS DEGREES RESPECTIVELY. C<br>ES AND AT 15 CPS, 25.5 DEGREES WHEREAS ALLONABLE VALUES ARE 9 DEGREES, 18 DEGREES, AND 22.5 DEGREES RESPECTIVELY. C<br>USED UT DEGRADATION OF QUALITY CONTROL AT VENDONS PLANT. | MAS AS FOLLOAS AT 6 CI<br>ARE 9 DEGREES, 18 DEG | PS. 10.0 DI                                                 | CHEES, A<br>12.5 DECH | 7 10 (EES AL | CPS, 16.0 DEGR<br>ESPECTIVELY. C         |     |
| COSKECTIVE ACTION-LOI                                                        | ON-LOT MANGER 448 REJECTED AND RETURNED TO WINDOR. REF-CTCTH NAMBER 556-7-025.                                                                                                                                                                                                                                                             | O VENDOR. REF-CTCTH N                           | -966 1380-                                                  | 020.                  |              |                                          |     |
| MYDMAULIC-A/D<br>SUSTAINE A/VERNIER                                          | PTALLE BEBUG VALVE                                                                                                                                                                                                                                                                                                                         | UTP-PET<br>27-04209-1                           | 001000                                                      | 3/0 <b>9</b>          | <b>2</b>     | YES CADILLAC SASE<br>NO CO.<br>FCEG-387A | •   |
| FATUURE MCE-OUT OF<br>LUS 0.27 Ms. ALLOMABLE                                 | FAILUAE MOE-OUT OF TOLEANCE-DURING FROOF CYCLE AFTER 160.000 LIFE 1687, THE MALL OFFRET CURRENT MIN MEASURED AS P<br>LUS 0.27 MA. ALLOMABLE VALUE IS PLUS OR -0.2 MA. CAUDED BY POOR BUALLITY CONTROL AT WINDORS PLANT.                                                                                                                    | 00,000 LIFE TEBT, THE<br>T POOR BUALITY CONTROL | HAL OFFE                                                    | ET CURREN             | 3            | MEASURED AS P                            |     |
| CORRECTIVE ACTION-REJ                                                        | ON-REJECTED LOT 8 TO VENDOR, REF-CTCTN ND.                                                                                                                                                                                                                                                                                                 | . 596-7-027.                                    |                                                             |                       |              |                                          |     |
| MYDRAW IC-A/B<br>BUSTAIMER/VESNIER                                           | ETA4145<br>SUBTAINER BERVO VALVE                                                                                                                                                                                                                                                                                                           | UIP-PE1<br>27-04808-1                           | <b>98</b> 010 <b>4</b>                                      | 3/ <b>9</b>           | <b>2</b> 0   | YES CADILLAC GAGE<br>NO FCEG-386A        |     |
| FAILURE MOE-OUT OF 1                                                         | FAILUNE MUCE-OUT OF TOLEANCE DURING PET TEST, THE STANDOT PRESSURE WAS READ PSIG (SPEC IS 1890 PLUS OR NIMUS SOD P<br>SIG) DURING FLUID HIGH TENPERSTURE TEST, TEST SPECIMEN EQS-0848; REPER TO FAILURE LOS MURGER 584-7-028. ALSO MULL CU                                                                                                 | OV PRESSURE LAS ZEAU (<br>9-0848; REFER TO FAIL | DE 109 NA                                                   | 13 1500<br>BER 586-   | 7-080        | OR NINUS SOD P                           |     |

18 JUN 1866

| TANK CO     | 90141A10 |
|-------------|----------|
| PERSONAL CO | CONVAIR  |
|             |          |

|                                                                           |                                                                                                                                                                                                                                                                                                                                                                                               |                                                                            |                                          |                 | -<br>-<br>-                                                          | VEHICLE PART NO                            |               |
|---------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|------------------------------------------|-----------------|----------------------------------------------------------------------|--------------------------------------------|---------------|
|                                                                           | COPPECTIVE ACTION-RETURN LOT TO PRODUCT SUPPORT.                                                                                                                                                                                                                                                                                                                                              |                                                                            |                                          |                 |                                                                      |                                            | •             |
|                                                                           | 274139.E<br>VERMIER SERVO VALVE                                                                                                                                                                                                                                                                                                                                                               | UTP-PET<br>E7-04E09-1                                                      | 641490                                   | 3/ <b>93</b>    | 7ES CAD<br>7CS CO.                                                   | CADILLAC GAGE<br>CO.<br>FCE0-3074          | •             |
| LUS OF TOL                                                                | FAILUME MODE-OUT OF TOLERANCE-DURING FLUID LOW TEMP. TEST, THRESHOLD CURRENT WAS PLUS D.12 AND MINUS D.19 MA. ALLOW<br>ABLE VALUE IS PLUS OR MINUS D.03 MA. HYSTERESIS WAS D.3 MA MHERE ALLOMABLE VALUE IS D.2 MA. ALSO FLOW RATE WAS D.50<br>GPH MHICH IS LOMER THAN ALLYMBLE VALUE OF 1.2 PLUS OR MINUS D.12 GPM. CAUSED BY DEGRADATION OF GUALITY CONTACL AT P<br>RODUCT SUPPORT FACILITY. | IT, THRESHOLD CURRENT I<br>M MHERE ALCOMBLE VALI<br>MUS O.12 GPM. CAUSED I | MS PLUS O.<br>UE 18 O.E P<br>BY DEGRADAT | 12 AND M        | FLOW RATE                                                            | PMA. ALECHE<br>E MAS 0.98<br>CHTACL AT P   |               |
| ION-RETI                                                                  | CORRECTIVE ACTION-RETURN LOT PS-1 AFTER REJECTION TO PRODUCT SUPPORT. DISASSEMBLY REVEALED RUST PARTICLES AND FIBER THEOLOGYCOTHE VALUE. THE FEEDBACK SPRING AND EXTERNAL ADJUST SCREW EXHIBITED ADVANCE STAGES OF RUST. REF. CTCTH NO                                                                                                                                                        | DUCT SUPPORT. DISASSE<br>DJUST SCREW EXHIBITED                             | MBLY REVEAL<br>ADVANCE &1                | ED RUST         | PARTICLE:<br>Rust. REI                                               | PARTICLES AND FIBER<br>RUST. REF. CTCTH NO |               |
| HTDRAULIC-A/B<br>SUSTAINER/YERNIER                                        | E74139-1<br>VERHIER BERVO VALVE                                                                                                                                                                                                                                                                                                                                                               | UTP-PET<br>27-04209-1                                                      | 641230                                   | 3/3             | 76.00<br>100<br>100<br>100<br>100<br>100<br>100<br>100<br>100<br>100 | CADILLAC GAGE<br>CO.<br>FC26-397A          | •             |
| FALLURE MODE-OUT OF TO<br>AND MINUS 0.30 MA. THE<br>REGUISSMENT FOR LOW 1 | FAILURE MOSE-OUT OF TOLEGAME-BIRING LOW TEMPERATURE (MINUS 30 DEGMEES F) TEST, THE THRESHOLD CURRENT MAS PLUS 0.28 AND MINUS 0.30 MA. THE ALLOMBLE VALUE IS PLUS 0.05 OR MINUS 0.05 MA. FAILURE CAUGED BY UNITALISTIC PERFORMANCE TEST REQUISEMENT FOR LOW TEMPERATURE VALUE.                                                                                                                 | MUS 0.05 MA. FAILUME                                                       | T. THE THING<br>CAUBED BY                | SHOLD CU        | RECHT WAS                                                            | PLUS G.ES                                  |               |
| CORRECTIVE ACTION-LOT<br>8 30 DEGREES F. REF-CT                           | CORRECTIVE ACTION-LOT WANNER A WAS REJECTED TO MAD FOR ACTION TO ACCEPT " OT ON BASIS OF SPECIFICATION CHANGE TO PLU<br>. 30 DECREES F. REF-CTCTH KINDER 358-7-025.                                                                                                                                                                                                                           | CTION TO ACCEPT ' OF ON                                                    | * BASIS OF                               | <b>PF</b> C1F1C | ATION CAL                                                            | NKE TO PLU                                 |               |
| MYDRÄULIC-A/B<br>Sustainer/Vernier                                        | 27A3773<br>DISCONECT-STAGING, POPPET BEAL                                                                                                                                                                                                                                                                                                                                                     | UTP-PET<br>27-06556-3                                                      | <b>6</b> 212                             | CONVAIR         | YES PEACOCK<br>ND 51290-3                                            | PEACOCK<br>S1290-3                         | <b>360700</b> |
| STRUCTURA                                                                 | FAILURE MOUE-STRUCTUMAL. DURING PRE TEST DISASSEMBLY IT WAS REVEALED THAT THE POPPET NEOPRENE SEAL WAS DAMMED IN T<br>Haee argas. Ref. Task History Log No. 662-7-020 8/N 109-0732.                                                                                                                                                                                                           | WAS REVEALED THAT THE 75E.                                                 | POPPET NEC                               | PREME SE        | A. 140 Q.                                                            | IMACD IN T                                 |               |
| T I CON- VENC                                                             | CORRECTIVE ACTION-VENDOR HOTIFIED TO IMPROVE BUALITY CONTROL, UNIT PUT INTO PET TEST.                                                                                                                                                                                                                                                                                                         | TROL, UNIT PUT INTO PE                                                     | .1691.                                   |                 |                                                                      |                                            |               |
| atoraul IC-a/d<br>Bustainer/Vernier                                       | 27'4116<br>VERNIER BERVO VALVE                                                                                                                                                                                                                                                                                                                                                                | UTP-PET<br>27-04209-1                                                      |                                          | 2/9             | 5 CA CA CA CA CA CA CA CA CA CA CA CA CA                             | CADILLAC GASE<br>CO.<br>PC28-397A          | •             |

CONVAIR BIVISION

11 100 1100

| ***                                                                             | DIFFICULTIES REVIEW-HUBRAULIC STRIFF-AIRBOAME                                                                                                                                                                                                                                                                                                                                                                      | AULIC STSTEN-AIRBOR                                                                      | ¥                                                     |                                                                      |                                                                                  | ٠    |
|---------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|-------------------------------------------------------|----------------------------------------------------------------------|----------------------------------------------------------------------------------|------|
| 8731E#<br>8U8-8731E#                                                            | TESTARPOAT NUMBER<br>FAILED COMPOMENT NAME                                                                                                                                                                                                                                                                                                                                                                         | DIF DATA SOURCE<br>PART HUMBER                                                           | VEHICLE<br>DATE BIF TI                                | BITE PRI                                                             | VENDOR NAME                                                                      |      |
| CORRECTIVE ACTION-LOT &                                                         | CONTECTIVE ACTION-LOT 44A AND TEST SPECINEN MERE REJECTED AND RETURNED TO VENDOR. REF-CTCTH NO. 558-7-023.                                                                                                                                                                                                                                                                                                         | ND RETURNED TO YEND                                                                      | M. REF-CTC)                                           | н но. 936-                                                           | 7-023.                                                                           | **** |
| HYDRA'ALIC-A/B<br>BUSTAINER/VERNIER                                             | ETALLS<br>VERHIER BERVOVALVE                                                                                                                                                                                                                                                                                                                                                                                       | U19-PE1<br>27-04209-1                                                                    | 99 62159                                              | 607C 1E3                                                             | TES CADILLAC 646E<br>NO NO.<br>FCES-387A                                         | 3    |
| FAILURE HODE-OUT OF TOL.<br>EREAS 1500 PLUS OR MINUS<br>MERE E130 AND E100 PSIG | FAILURE HODE-OUT OF TOLEMANCE-DURING PROOF CYCLE AFTER BOBIDDO CYCLES LIFE TEST, STAND EMEAS 1500 PLUS OR MINUS 500 PSIG IS ALLONED. AT CONCLUSION OF 1,350,000, AND 1,800,000 MERE 2130 AND 2100 PSIG RESPECTIVELY, FAILURE CAUSED BY DEGRADATION OF BUALITY CONTROL                                                                                                                                              | 000 CYCLES LIFE TES<br>OF 1,330,000, AND 1<br>AADATION OF BUNLITY                        |                                                       | BY PHESSURE WAS 2100 CYCLES THE STANDSY PRI<br>AT THE VENDORS PLANT. | BT PRESSURE WAS 2100 PSIG WAS CYCLES THE STANGET PRESSURES AT THE VENDORS PLANT. |      |
| CORRECTIVE ACTION-LOT 4                                                         | CORRECTIVE ACTION-LOT 44A AND TEST SPECIMEN MERE REJECTED AND RETURNED TO VENDOR, REF. CICIM NO. 556-7-022.                                                                                                                                                                                                                                                                                                        | ND RETURNED TO VENE                                                                      | 38. RGF. 210                                          | 7H NO. 556                                                           | -7-02£.                                                                          |      |
| MYDGAULIC-A/B<br>SUSTAINEG/VERNIER                                              | GOALSSE.4<br>VERNIER ACTUATOR ASSEMBLY, SERVO V ET-05312-005<br>ALVE                                                                                                                                                                                                                                                                                                                                               | UTP-PRT<br>E7-8331E-803                                                                  | 122110                                                | FACTORY YES                                                          | YES LICHEL PACIFIC<br>NO                                                         | :    |
| FAILURE MODE-STRUCTURAL<br>OVER. THIS MAS CAUSED B<br>03-0374.                  | FAILUME MODE-STRUCTURAL-DURING PRI VIBRATION SWEEP IN K-AKIB AT A SINE PREGUENCY OF 900 CPS, THE ACTUATOR NENT MAND<br>Over. This was caused by a cracked bervoyalve coil which created an Open. Ref. Taba mibitory Log No. 556-7-020 s/m 4<br>3-0374.                                                                                                                                                             | 8 AT A SIME FREGUEN<br>EATED AN OPEN. REF.                                               | TANK MESTON                                           | 9, THE ACT<br>T LOS 80.                                              | UATOR MENT HARD<br>\$56-7-020 S/N 4                                              |      |
| CORRECTIVE ACTION-TEST<br>T THIS ENVIRONMENT, REDE                              | CONRECTIVE ACTION-TEST TERMINATED. TEST WAS CONDUCTED WITH SINE/RANDON VIBRATION. THE UNIT WAS NOT PURCHASED TO MEET THIS ENVIRONMENT. REDESIGN REQUIREMENTS.                                                                                                                                                                                                                                                      | MITH SINE/RANDOM VISRATIO<br>SINE/RANDOM REGUIREMENTS.                                   | 26. THE UNIT                                          | TON BAD                                                              | URCHANED TO HEE                                                                  |      |
| HTORAULIC-A/8<br>Bustaingq/vernier                                              | GBA1932-4<br>VERNIER ACTUATOR ABSEMBLY, PLEDBAC 87-05318-005<br>K TRANSOUCER                                                                                                                                                                                                                                                                                                                                       | UIP-PAT<br>87-83318-803                                                                  | 03 188100                                             | CON TENEDS                                                           | TES LICHEL PACIFIC                                                               | :    |
| FAILURE MODE-STRUCTURAL<br>OVER DECAUSE OF SERVOYA<br>L DARAGE, THE MOUNTING-C  | FAILURE WOE-STRUCTURAL-DURING PRT VIBRATION SHEEP IN K-AKIS AT A SINE FREGUENCY OF 500 CPS. THE ACTUATOR OVER LECAUSE OF SERVOYALVE FAILURE, FURTHER INVESTIGATION REVEALED THAT THE FEGURACK TRANSDUCER SUSTAINED IN SHARE, THE MOMITING-CLIP ON THE PROBE END OF THE XCDR WAS BROKEN OFF. ALSO THE BODY CASE WAS CRACKED AT TON WITH THE MAIN MOUNTING FLANGE, REF. TASK HISTORY LOS NO. 338-7-020 B/N 403-0374. | S AT A SIME PREGUEN<br>EVEALED THAT THE PE<br>BROKEN OFF. ALSO TO<br>338-7-02G S/N 4G3-1 | 17 OF 500 CF<br>128ACK TRANS<br>14 BODY CASE<br>3874. | S, THE ACT<br>DUCEN BUST<br>MAS CRACK                                | UATON MENT HARD<br>AINED STRUCTURA<br>ED AT THE JUNCT                            |      |
| CORRECTIVE ACTION-TEST TERMINATED. T THIS ENVIRONMENT, REDESION REGULA          | CORRECTIVE ACTION-TEST TERHINATED. TEST WAS CONDUCTED WITH SINE/RANDOM VIGRATION. THE UNIT WAS NOT PUNCHASED TO MEE<br>I THIS ENVIRONMENT. REDESIGN RESULRED TO MEET TEP-6188 SINE/RANDOM RESULREDENTS.                                                                                                                                                                                                            | SINE/RANDOM VIGRATION RANDOM REQUIREMENTS                                                | N. 145 GH11                                           | TON 8 MI                                                             | VACHASED TO HEE                                                                  |      |
| HTDRAVLIC-A/B<br>BUBTAINER/VERNIER                                              | SLV-A9-10-272F<br>HOGE ABSENDLY: 0-NUT                                                                                                                                                                                                                                                                                                                                                                             | FAR<br>27-08575-8                                                                        | 7110 71                                               | PACTORY YES                                                          | YES AEROBUIP<br>NO 977341-6-0215                                                 |      |

FAILUAE MOE-LEAR EXTERNAL, HYBRAULIC PLLID LEARED FROM BOTH ENDS OF HOSE ASSENDLY UNDER PRESSURE, PAILUAE HAS DUE TO IMPROPER TORIVING PROCEDURE ON INSTALLATION.

CONVAIR DIVIDION

1901 NAT 51

|                                                                                                           | DIFFICULTIES REVIEW-H                                                                                                                                                                                                                                                                                                                                                   | DIFFICULTIES REVIEW-HYDRAULIC SYSTEM-AIRBORNE                             | ¥                                      |                               |                |                                                                      |              |
|-----------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|----------------------------------------|-------------------------------|----------------|----------------------------------------------------------------------|--------------|
| \$151EN<br>\$U\$-\$15EN                                                                                   | TEST/REPORT NUMBER<br>FAILED COMPONENT NAME                                                                                                                                                                                                                                                                                                                             | DIF DATA SOURCE<br>PART NUMBER                                            | WENICLE<br>DATE DIF                    | 111E                          | 2 5<br>2 5     | WENICLE BITE PRI VENDOR NAME<br>DATE DIF TIME BIF OTH VENDOR PART NO |              |
| CORRECTIVE ACTION-6D/C F                                                                                  | CORRECTIVE ACTION-6D/C PERSONNEL WERE CAUTIONED TO APPLY PROPER INSTALLATION PROCEDURES.                                                                                                                                                                                                                                                                                | PROPER INSTALLATION P                                                     | ROCED UNES.                            |                               |                |                                                                      |              |
| HTDAAULIC-A/B<br>Bustainea/Vernier                                                                        | 2744035<br>BUSTAINER BERWO VALVE                                                                                                                                                                                                                                                                                                                                        | UTP-PET<br>B7-04808-1                                                     | 61218                                  | <b>9</b> / <b>9</b>           | ÷ 8            | TES CADILLAC<br>NO FC26-396A                                         | •            |
| FAILURE MOE-OUT-OF-TOLERANCE DU<br>36 GPN MAK.). TEST SPECINEN 406-01<br>ON 641223 (TEST REPORT ETASSSI). | FAILURE MOE-OUT-OF-TOLERANCE DURING PET TEST. ENCESSIVE FLOW FROM PORTS 1 AND E FROM 8.39 TO 8.47 GPM (SPEC. 18 E. ON GAIZES (TEST SPECINEN AGG-0871; LOT 838. REFER TO FAILURE LOS 858-7-018. BIMILIAR FAILURE DURING PET LIFE TEST ON GAIZES (TEST REPORT 8783991).                                                                                                   | FLOW PROM PORTS 1 AND<br>LILUME LOS 886-7-015.                            | B PRON 8.                              | SS TO B.                      | 3 ¥<br>5 \$    | M (8PEC. 18 E.<br>PET LIFE TEST                                      |              |
| MYDRAULIC-A/B<br>SUSTAINER/VERNIER                                                                        | 69A1952.3 VERNIER ACTUATOR ASSEMBLY, FEEDGAC 27-05312-005 R TRANSDUCER                                                                                                                                                                                                                                                                                                  | UTP-PRT<br>AC ET-05312-403                                                | 41817                                  | y/9                           | ₽ 2<br>2       | VES LIGHEL PACIFIC 696404                                            | 3            |
| <br>FAILURE MODE-STRUCTURAL-<br>VER BECAUSE OF SERVO VALV<br>DAMAGE. THE MOUNTING CLI<br>M 401-0558.      | FAILURE MODE-STRUCTURAL-DURING PRT VIBRATION SMEEP IN X-AXIS AT A SINE PRESUENCY OF 14 CPS THE ACTUATOR NEWT HARD ON WER BECAUSE OF SERVO VALVE FAILURE. FURTHER INVESTIGATION REVEALED THAT THE PERDACK TRANSDUCER SUSTAINED STRUCTURAL DANACE. THE MOUNTING CLIP ON THE PROBE END OF THE TRANSDUCER WAS DROKEN OFF. REF. TASK HISTORY LOS NO. 558-7-018 S/N 401-0558. | XIS AT A SINE PREGUEN<br>REVEALED THAT THE PEEL<br>KER WAS BRONEN OFF. R  | CY OF 14 C<br>DBACK TRAN<br>EF. TABK H | PS THE ANDOUGEN SE            | CTUAT<br>USTAI | ACTUATOR WENT HARD O<br>SUSTAINED STRUCTURAL<br>LOG NO. 55E-7-018 B/ |              |
| CORRECTIVE ACTION-TEST 1<br>THIS ENVIRONMENT, REDES                                                       | CORRECTIVE ACTION-TEST TERMINATED. TEST HAS CONDUCTED WITH SINE/RANDON VIBRATION. THE UNIT HAS NOT PURCHASED TO MEE<br>I THIS ENVIRONMENT. REDESIGN REQUIRED TO NEET TOP-8199 SINE/RANDON REQUIRENENTS.                                                                                                                                                                 | H SINE/RANDON VIBRATII<br>Ke/Randon Reguirenents                          | OM. THE UM                             | II MAS M                      | 2 5            | RCMSED TO MEE                                                        |              |
| <br>MYDRAULIC-A/B<br>Bustaincr/Vernier                                                                    | 6941952.3<br>VERNIER ACTUATOR ASSEMBLY, SERVO V 27-85312-805<br>ALVE                                                                                                                                                                                                                                                                                                    | UTP-PRT V 27-05312-003                                                    | 41817                                  | <b>9</b> /9                   | ភ្នំ           | YES LIGHEL PACIFIC                                                   | 3            |
| FAILURE MODE- STRUCTURAL- DU<br>CVER. THIS WAS CAUSED BY A CI<br>6 NO. 956-7-018 S/N 401-0558.            | FAILURE MODE- STRUCTURAL- DURING PRT VIBRATION BMEEP IN X-AXIS AT A SINE PREBUENCY OF 14 CPS TME ACTUATOR WENT MAND<br>Over. This was caused by a cracked servo valve coll umich created an open between Pin A and B. Rep. Task History Lo<br>. No. 536-7-018 s/m 401-0538.                                                                                             | I-AXIS AT A SINE PAEBU<br>I CREATED AN CPEN BETW                          | ENCY OF 14<br>EEN PIN A                | CPS THE                       | ACTU<br>F 73   | ATOR MENT HARD<br>ASK HISTORY LO                                     |              |
| CORRECTIVE ACTION-TEST 1<br>THIS ENVIRONMENT, REDES                                                       | CORRECTIVE ACTION-TEST TERMINATED. TEST WAS CONDUCTED WITH SINE/RANDON VIBRATION. THE UNIT WAS NOT PURCHASED TO WEE<br>I This environment. Redebion Reguired to Meet TCP-6196 SINE/RANDON REGUIRENENTS.                                                                                                                                                                 | H SINE/RANDOM VIBRATIO<br>IE/RANDOM REBUIRENENTS                          | OH. THE SH                             | 11 W 1                        | 2              | ACHABED TO MEE                                                       |              |
| <br>Hydraul IC-a/B<br>Sustaimer/Vermier                                                                   | ETALLIS<br>VERLIER BERVO VALVE                                                                                                                                                                                                                                                                                                                                          | UTP-PET<br>RT-04209-1                                                     | <b>61110</b>                           | 3/ <b>03</b>                  | <b>1</b> 9     | 728 CADILLAC 646E<br>NO CO.<br>FC-26-387A                            | <del> </del> |
| PAILURE HODE-OUT OF YOLE OF HINUS D.ES NA MAS OBTA                                                        | FAILUME HODE-OUT OF TOLERANCE-DURING HIGH TEMP. TEST AT PLUS 185 DEGREES F. THE MULL CURRENT WAS MEASURED AS HIMUS<br>0-88 MA. MAINUM PERHITTED CLOSED LOOP MAS HIMUS 0-31 MA. MAKIMUM PERHITTED 18 0-80 MA. AND AT 115 DESAKES F A NULL<br>OF HIMUS 0-24 MA WAS OBTAINED. FAILURE CAUSED BY BUALITY CONTROL DEGRADATION AT VENDORS PLANT.                              | N.US 165 DEGRES F, THE<br>MAKINUM PERMITTED 18 (<br>OMTHOL DEGRADATION AT | D.20 M. A                              | AENT WAS<br>NO AT SE<br>LANT. | 33             | URED AS MINUS<br>REES F A MULL                                       |              |

SEMERAL DYNAMICS

| CONVAIR BIVIBION |  |
|------------------|--|
| CONVAIR          |  |
|                  |  |

11 JUN 11060

|   | 9301 WAT 81                                                                                         | DIFFICULTIES REVIEW-HYDRAULIC STRIEM-AIRBORNE                                                                                                                                                                                                                                                                                                                                        | IAULIC BYBTEH-AIRBOR                                                                                                                                                              | ¥                                   |            |                                       |                                                    | 1           |
|---|-----------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|------------|---------------------------------------|----------------------------------------------------|-------------|
|   | 3737EM<br>808-8737EM                                                                                | TEST/AEPONT NUMBER<br>PAILED COMPONENT NAME                                                                                                                                                                                                                                                                                                                                          | DIF DATA SOURCE<br>PART NUMBER                                                                                                                                                    | WENTCLE<br>DATE DIF                 |            | 1 % TO                                | SITE PRI VENDOR MANE<br>THE BIF OTH VENDOR PART NO |             |
|   | COMPECTIVE ACTION-101                                                                               | COMPECTIVE ACTION-LOT ASC AND TEST SPECIMEN REJECTED AND RETURNED TO VENDOR. REF. CTCTH NO. 556-7-017.                                                                                                                                                                                                                                                                               | TURKED TO VENDOR. A                                                                                                                                                               | <b>[7.</b> C1C1#                    | . 936-     | 7-017                                 |                                                    | •           |
|   | NYD4AULIC-A/B<br>SUSTAINE4/VERNIER                                                                  | SLV-8D-G4-4983-F<br>VERNIER ACTUATOR ASSEMBLY, O-KING                                                                                                                                                                                                                                                                                                                                | FAR<br>E7-6531E-605                                                                                                                                                               | 7100                                | 478        | 5 8                                   | YES LIGHEL PACIFIC                                 | •           |
|   | FAILURE MODE-LEAK ENTEL<br>ON THE SHAFT SEALS. EKCI<br>RICATOR WAS A STROMG COM                     | FAILUME MODE-LEAK EFTERMAL-DUMING PERFORMANCE OF PROCEDUME 27-BBIZZ THE ACTUMIER WAS FOUND LEAKING HIDMAULIC OIL FR<br>Om the shaft seals. Excessive Leakage is attributed to a defective dynamic sealing o-ring. Shaegoding of the Felt Lub<br>Ricator was a strong contributor to this failure. Beal Mear decreased effective sauceze.                                             | E7-981EE THE ACTUAT<br>TECTIVE DYNAMIC SEAL<br>DECREASED EFFECTIVE                                                                                                                | ER MAS FOR<br>ING O-RIM<br>SQUEEZE. | MO LEAKIII | 4 F                                   | DRAWIC OIL PA<br>F THE FELT LUB                    |             |
| - | CORRECTIVE ACTION-ASSED<br>PERSONNEL INVOLVED ON I<br>APPROVED WAP AUTHORIZES<br>R TESTING CHANGES. | CORECTIVE ACTION-ASSEMBLY PERSONNEL MERE INFORMED OF LEARAGE CAUSE AND ALERTED TO THE CORPECT ASSEMBLY TECHNIAUES.<br>Personnel involved on missile instalation were instructed as to correct mon-up and installation of this unit. An<br>APPROVED MAP AUTHORIZES ESTABLISHME'T OF EXTENDED LEARAGE TEST CRITERIA AS PART OF THE PROGRAM FOR HYDRAULIC ACTUATO<br>R TESTING CHANGES. | INE CAUSE AND ALERIED TO THE COMPECT ASSEMBLY TECHNIAUES.<br>AS TO CORRECT MOXILIE AND INSTALLATION OF THIS UNIT. AN<br>IST CRITERIA AS PART OF THE PROGRAM FOR HYDRAULIC ACTUATO | D TO THE O                          | COPECT AS  | 9 0 X                                 | LY TECHNIQUES.<br>THIS UNIT. AN<br>MAULIC ACTUATO  |             |
|   | HTDRAUL I C-A/B<br>SUSTAINER/VERNIER                                                                | LV-A9-D4-4960-F<br>SUSTAINER ACTUATOR ASSEMBLY, ABJUS 27-85314-819<br>THENT SPRING                                                                                                                                                                                                                                                                                                   | FAR<br>127-05314-619                                                                                                                                                              | £040<br>641 £09                     | FACTORY    | <b>2</b> 8                            | NO FIGHEL PACIFIC                                  | 90994       |
|   | FAILURE MODE-OUT OF 3PP<br>WOLT, MAZINUM ALLOMED A                                                  | FAILURE HODE-OUT OF SPECIFICATION-DURING FINAL CHECKOUT ABOARD MISSILE EGG-D, MULL VOLTAKE MAS REPORTED TO BE 0.540 VOLT, MAXIMUM ALLOWED IS 0.350 VOLT, MALL 2HIFT MAS CAURED BY BLIGHT HOWERENT OF THE MALL ADJUSTMENT SPRING TO A STITE OF LOKER SPRING TENSING DURING BERVOCYLINDER ASSEMBLY OPERATION (AFTER FINAL MULL ADJUSTMENT).                                            | ARD MISSILE 204-D.<br>BY SLIGHT MONEMENT<br>REATION LAFTER FINA                                                                                                                   | HALL VOLTA OF THE HALL L HUAL AD.   | GE MAS RI  | EN .                                  | ED TO BE 0.540                                     |             |
|   | CORRECTIVE ACTION-DESIGN PERSONNEL DRACK SPRING MOVENENT IS CONSIDERED AFORNAME.                    | CORECTIVE ACTION-DESIGN PERSONMEL REVIEWED THIS FAILUME AND 178 CAUME. THE HARMITUDE OF A MALL SHIFT CAUSED BY FEE<br>Back dring movement is considered by Design Personnel to be of Himon Harmitude and Mould mot Jeopandize Hissile Pe<br>Formance.                                                                                                                                | D ITS CAUSE, THE WA                                                                                                                                                               | E AND NOW                           | A MAL.     | 944                                   | CAUSED BY FEE                                      |             |
|   | HYDAAULIC-A/B<br>SUSTAINEA/VERNIER                                                                  | SLY-AS-D4-497D-F<br>SUSTAINER ACTUATOR, O-RIME                                                                                                                                                                                                                                                                                                                                       | FAN<br>27-05514-017                                                                                                                                                               | 1031 PB                             | PACTORY    | 5 9                                   | YES LICHEL PACIFIC 806255                          | :           |
|   | FAJLUNE HODE-EXTERNAL I<br>HOER ASST. LEARAGE MAS (<br>ITH BURFACE FLAMS.                           | FAILUNE MOCS-EXTERNAL LEAKAGE-HYDRAULIC LEAKAGE MAS OBBERVED AT THE END GLAND MUT ON THE SUSTAINER PITCH BERVC CYLI<br>Hder asst. Leakage was due to contanthation introduced during installation of the o-ring; and to the use of o-ring w<br>Ith bunface plans.                                                                                                                    | 10 AT THE END GLAND<br>WE INSTALLATION OF T                                                                                                                                       | MUT ON THE                          | AND TO     | # # # # # # # # # # # # # # # # # # # | TCH BERVO CYLI<br>BE OF O-RING W                   |             |
| _ | CORRECTIVE ACTION-60/C OBTAINED ONE CORRECTIVE ACTION WAS TAKEN ERS, VOIDS, LAPS, AND POLOCITY.     | CORRECTIVE ACTION-60/C GETAINED VENDOR CORRECTIVE ACTION BEFORE THIS PAILURE OCCURRED AND UNIT WAS MANUFACTURED BEF<br>HE CORRECTIVE ACTION WAS TAKEN. LIGHEL PACIFIC NOM INSPECTS ALL BEALING O-RINGS FOR BINEMSIONAL REQUIREMENTS, BLIST<br>RS, WOIDS: LAPS: AND POLOCITY.                                                                                                         | FORE THIS PAILURE O                                                                                                                                                               | CCURRED A                           | MEIONAL IN | TO BE                                 | MUPACTURED BEP<br>REMENTS: BLIST                   | <del></del> |

GENERAL DYNAMICS CONVAIR BIVISION

9901 M7 11

DIFFICULTIES REVIEW-HYDRAULIC SYSTEM-AIRBORNE

| 8757EM<br>8UB-8757EM                                                                 | TEST/REPORT NUMBER<br>FAILED COMPONENT NAME                                                                                                                                                                                                                                                          | DIF DATA BOURCE<br>PART NUMBER               | VENICLE BITE<br>DATE BIF TIME BIF | 917E                     | PRI VENDOR MANE<br>OTH VENDOR PART NO    |        |
|--------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|-----------------------------------|--------------------------|------------------------------------------|--------|
| MTDRAULIC-A/B<br>BUSTAINES/VERNIER                                                   | 27-5879 UIP-PET<br>PITCH/ROLL LINEAR POSITION TRANSDU ET-D4EG4-1<br>CER                                                                                                                                                                                                                              | UIP-PET<br>R7-04804-1                        | 202170                            | ) y                      | VES CREACENT<br>NO MC-106-4E             | ***    |
| FAILURE MODE-SHORT (ELEC<br>ILURE DISAPPEARED WHEN TE<br>ON SEALS ON EACH END. REF   | FAILURE MODE-SMORT (ELECTRICAL), DURING PET SOO DEGREES P TEMPERATURE TEST, SPECINEM SMORTED INTERNALLY, MOMEWER PA<br>Ilure disappeared umen temp, was reduced, when specinem was removed, black, sticky substance has found protrudime pa<br>On seals on each end, refer to failure los ssg-7-D11, | DIPERATURE TEST, SPE<br>NEMOVED, BLACK, STIC | CINEN BHO                         | ITED INTER<br>ICE MAB FO | MALLY, MONEVER PA<br>UND PROTRUBING PR   |        |
| CORRECTIVE ACTION-SPECIM                                                             | CORRECTIVE ACTION-SPECIMEN WAS TESTED TO EXCESSIVE TEMP., SPECIFICATION REQUIREMENT SMOLES SE CHAMED. ACTION TO SE<br>Taken by 650315                                                                                                                                                                | ECIFICATION REGUIRE                          | HENT BHOUR                        | D DE CHAN                | 6ED. ACTION TO BE                        |        |
| HTDRAULIC-A/B<br>Bustainer/Vernier                                                   | 27a/076<br>Vernier Bervo Val <b>ve</b>                                                                                                                                                                                                                                                               | UTP-PET<br>27-04209-1                        | <b>641130</b>                     | ¥ 2/9                    | YES CADILLAC GAGE<br>NO CO.<br>FC20-387A | 9      |
| FAILURE MODE-OUT OF TOLE<br>PERHITTED IS 0.60 MA. AN<br>ENDORS PLANT.                | OF TOLERANCE-DURING LOW FLUID TEWE, TEST, THE MULL CURRENT WAS MEASURED AS -0.30MA, MAXIMUM VALUE.<br>MA. AN AMBIENT CHECK INDICATED A MULL OF -0.035 MACAUSED BY GUALITY CONTROL DEGRADATION AT THE W                                                                                               | ME MULL CURRENT MAS                          | NEABURED<br>GUALITY CO            | A8 -0.30H                | A. MAXIMUM YALUE<br>AADATION AT 1ME V    |        |
| CORRECTIVE ACTION-SPECIM<br>CEPTANCE, SPEC. TEMP. REG<br>0.                          | CORRECTIVE ACTION-SPECIMEN FAILED WAS LAST OF LOT 44C AND LOT TO BE REJECTED AND SUBMITTED TO MAS FOR ACTION FOR AC<br>EPTANCE. SPEC. TEMP. REQUIREMENTS WILL BE CHANGED. PROM -30 DEGREES F TO PLUS 30 DEGREES F. REF. CTCTM NO. 556-7-01.                                                          | OT TO BE REJECTED AN<br>DEGREES F TO PLUB 1  | D SUBMITTE<br>10 DECACES          | D TO MES                 | FOR ACTION FOR ACTION SS6-7-01           |        |
| MYDRAULIC-A/B<br>BUBTAINER/YERNIER                                                   | ETAADSS<br>SUSTAINER SERVO VALVE                                                                                                                                                                                                                                                                     | UTP-PET<br>27-04208-1                        | 631179                            | )                        | VES CADILLAC<br>NO FC26-396A             | :      |
| FAILURE MODE-OUT-OF-TOLE<br>DYMANIC. (SPEC. IS 0.20 M                                | I-OF-TOLERANCE DURING PET LIPE TEST, MULL CURRENT HAS PLUS D.44 MILLIANPS STATIC AND 0.45 MILLIANPS<br>18 0.20 Millianps Max.), Test Specimen 406-0963, Lot 23C. Reper to Pailume Los 856-7-008.                                                                                                     | RENT WAS PLUS 0.44<br>MBS: LOT ESC. REPER    | NILLIANES<br>TO FAILUM            | 87471C AN                | 0 0.46 MILLIAMS<br>7-009.                |        |
| CORRECTIVE ACTION-LOF #3                                                             | CORRECTIVE ACTION-LOT 23C REJECTED AND RETURNED TO VENDOR.                                                                                                                                                                                                                                           |                                              |                                   |                          |                                          |        |
| MYDGAULIC-A-B<br>Bustaineg-Vernier                                                   | ETA4023<br>Hydraulic Plex Hose Asst.                                                                                                                                                                                                                                                                 | UTP-PET<br>27-0657 <u>5</u> -5               | 631179                            | CONVAIR                  | 7E& AEROGUIP<br>NO 677341-6-0218         | 997088 |
| FAILURE MODE-LEAK-EXTERNA<br>LES AT A RAIE OF 35CPM, TM<br>BACK OF THE MIPPLE SHANK, | FAILURE MODE-LEAK-EXTERNAL, DURING LIFE TEST JAPULSE TEST WITH THE OIL TEMPERATURE AT 279 DEGREES F, AFTER 8807 CYC<br>Les at a raie of 35cpm, the unit developed 3 leaks. Res. No leaks. The leak was caused by a crack in the tuse at the<br>sack of the hipple shank,                             | ITH THE OIL TEMPERAT<br>EARD. THE LEAK WAD   | CAURED BY                         | DEGREES<br>A CRACK S     | F, AFTER BBOY CVC<br>IN THE TUBE AT THE  |        |

COMMECTIVE ACTION-RETURN UNIT AND ALL UNITS ASSOCIATED WITH THE LOT BACK TO THE VENDOR. REP. TASK HISTORY LOS NO SS. R-7-008. AEROJUIP FAILURE AMALTSIS NO. 443. 8/N 410-1808.

GENERAL BYNAMICS CONVAIR BIVISION

9961 WAT 51

|                                               |                                            | 7                                       |                                                                                                                                                                                                                                                                                                                                                  | •                                |                                                                                                                                                                                                                                                                                                                                                                                  | 90                                                                                                                                                                                                                                                                                          |                                                                                                                                                      | • • • • • • • • • • • • • • • • • • • • |                                                                                                                                                                                                                                                                                                                                                |                                 |
|-----------------------------------------------|--------------------------------------------|-----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|
|                                               | VENDOR MANE                                | TES CADILLAC GAGE<br>NO CO<br>FCE6-237A | ANT.                                                                                                                                                                                                                                                                                                                                             | CADILLAC CASE<br>CO<br>FCES-187A | LANT. LANT. TAMEN BY 60/C 0                                                                                                                                                                                                                                                                                                                                                      | 139 40/C YES CADILLAC GASE NO CO COAMENT WAS MEASURED AS 0.34MA. NDEORS PLANT.                                                                                                                                                                                                              | 7AKEN 87 40/C 6                                                                                                                                      | VES CADILLAC GAGE<br>NO CO<br>PCER-887A | TAREN BY 60/C &                                                                                                                                                                                                                                                                                                                                |                                 |
|                                               | - E                                        | ភ្នំ ទ                                  | 3                                                                                                                                                                                                                                                                                                                                                | 50                               | A S S S S S S S S S S S S S S S S S S S                                                                                                                                                                                                                                                                                                                                          | 2                                                                                                                                                                                                                                                                                           | 3                                                                                                                                                    | 2 <u>6</u>                              | ANT.                                                                                                                                                                                                                                                                                                                                           |                                 |
|                                               | 11 ME D17                                  | 3/ <b>9</b>                             | MARKAT ME<br>THE VENDO                                                                                                                                                                                                                                                                                                                           | y <b>9</b>                       | MENT MAI                                                                                                                                                                                                                                                                                                                                                                         | 40/C<br>Bit ima e<br>te filadit.                                                                                                                                                                                                                                                            | F BY ACTI                                                                                                                                            | )/ <b>9</b>                             | INDONE PA                                                                                                                                                                                                                                                                                                                                      |                                 |
| ¥                                             | VEHICLE BITE PRI<br>DATE DIP TIME DIP OTH  | 13115                                   | HE MAL CO                                                                                                                                                                                                                                                                                                                                        | 4116                             | MATION AT                                                                                                                                                                                                                                                                                                                                                                        | HALL CURN                                                                                                                                                                                                                                                                                   | DORS PLAN                                                                                                                                            | <b>6</b> 1110                           | MAL CURRE!<br>1 AT THE W<br>DORB PLAN                                                                                                                                                                                                                                                                                                          |                                 |
| AULIC SYSTEM-AIRBOM                           | DIF DATA SOURCE<br>PART NUMBER             | UTP-PET<br>27-04208-1                   | LITE PROOF CYCLE, I<br>LITY CONTROL DEGRA<br>BEEN IMPOSED AT WE                                                                                                                                                                                                                                                                                  | UTP-PET<br>27-04208-1            | LITY CONTROL DEGRAM                                                                                                                                                                                                                                                                                                                                                              | UTP-PET<br>27-04209-1<br>E PROOF CYCLE, THE<br>ROL DEGRADATION AT                                                                                                                                                                                                                           | BEEN IMPOSED AT VE                                                                                                                                   | UTP-PET<br>27-04208-1                   | CONTROL DEGRADATION MEN IMPOSED AT VEN                                                                                                                                                                                                                                                                                                         |                                 |
| DIFFICULTIES SEVIEW-HYDRAULIC SYSTEM-AIRBORNE | TESTAEPONT HUMBEN<br>PAILED COMPONENT MAME | FFA4036<br>VERHIER BERVO VALVE          | PAILUME MODE-OUT OF TULERANCE-DURING POST 1,8000,000 CYCLE LIFE PROOF CYCLE, THE MULL CURRENT MAS MEASUMED AS PLUS 0.38 MA THE MAXIMUM PERMITTED IS PLUS 0.20 MA. CAUSED BY BUMLITY CONTROL DEGRADATION AT THE VENDORS PLANT.  CORRECTIVE ACTION-IMPROVED BUMLITY CONTROL PROCEDURES MAYE BEEN IMPOSED AT WENDORS PLANT BY ACTIONS TAKEN BY 60/C | PZA4036<br>VERNIER SERVO VALVE   | FAILURE MODE-OUT OF TOLERANCE-DURING POST 1,350,000 CYCLE LIFE PROOF CYCLE, THE MULL CURRENT WAS MEASURED AS PLUS.  34 MA. THE MAXIMAM PERMITTED IS PLUS 0.20 MA. CAUSED BY BUALITY CONTROL DEGRADATION AT THE VENDORS PLANT.  CORRECTIVE ACTION-IMPROVED BUALITY CONTROL PROCEDURES MANE BEEN IMPOSED AT VENDORS PLANT BY ACTIONS TAKEN BY 60/C  A. REF. CICTH NUMBER 356-7-007 | TORALLIC-A'B ETA4036 UIP-PET 641119 60/C USTAINER/VERNIER PERWONALWE R7-04609-1 87-04609-1 FAILURE HODE-OUT OF TOLERANCE-DURINE POST 800,000 CYCLE LIPE PROOF CYCLE, THE MALL CURRENT HAS HITHE HAXINM PERMITTE IS PLUS 0.20 HA CAUSED BY BURLITY CONTROL DEGRADATION AT THE WENDORS PLANT. | CONRECTIVE ACTION-INPROYED GUALITY CONTROL PROCEDURES MANE BEEN INFOSED AT VENDORS PLANT BY ACTIONS TAKEN BY 60/C<br>A. Ref- CTCTH MUNGER 956-7-005. | EPAGSE<br>RENIER RETVOVALVE             | PAILURE MONE-OUT OF TOLERANGE-DURING POST 450,000 CTCLE LIFE-PROOF CYCLE THE MALL CURRENT WAS REASONED AS PLUS 0.30 MA. THE MAXIMUM PERHITIED IS PLUS 0.20 MA CAUGED ST GUALITY CONTROL DEGRADATION AT THE VENDORS PLANT.  CORRECTIVE ACTION-INFROVED GUALITY CONTROL PROCEDURES MAVE BEEN IMPOSED AT VENDORS PLANT BY ACTIONS TAKEN BY 50/C & | ••                              |
| 9961 WAT 51                                   | 9131EM<br>848-5737EM                       | MIER                                    | TAILURE HODE-OUT OF TULERANCE-DI-<br>188 MA THE MAXIMUM PERMITTED 18. CORRECTIVE ACTION-IMPROVED BUAL.                                                                                                                                                                                                                                           | NIER                             | FAILURE MODE-OUT OF TOLERANCE-C<br>34 MA. THE MAXIMUM PERMITTED II<br>CORRECTIVE ACTION-IMPROVED GUAL<br>A. REF. CICIM MAMBER 556-7-007                                                                                                                                                                                                                                          | SUSTAINER/VERNIER ETAROSOS SUSTAINER/VERNIER VERNIER FAILURE MODE-OUT OF TOLERANCE-DU THE MAXIMUM PERNITIED IS PLUS 0.8                                                                                                                                                                     | COMPECTIVE ACTION-INPROVED GUAL.<br>A. REF- CTCIM MAGEG 956-7-003.                                                                                   | NICA                                    | RE MODE-OUT OF TOLEGANGE.  E MARINUM PERMITTED 18 PL  THYE ACTION-IMPROVED BUM                                                                                                                                                                                                                                                                 | A, ALF- CICIA NUMBER 316-7-004. |
| -                                             |                                            | HYDRAULIC-A/B<br>BUSTAINER/VER          | 0.30 M                                                                                                                                                                                                                                                                                                                                           | HYDRAULIC-A/B<br>BUSTAINER/VER   | 7A1LU<br>-34 MA<br>- CORRE                                                                                                                                                                                                                                                                                                                                                       | MYDGALLIC-A/B<br>BUBIAINEG/VEG<br>FAILUGE MOD<br>THE MAKIMUM                                                                                                                                                                                                                                | CONTR.                                                                                                                                               | HTDRAUL [C-A/B                          | FABLU<br>MA. THE<br>CORRECTOR                                                                                                                                                                                                                                                                                                                  | 7. BE                           |

CONVAIR BIVISION

DIFFICULTIES REVIEW-HYDRAULIC SYSTEM-AIRBORNE

38

13 JUN 1986

|                                                                     |                                    |                                                                                                                                                                                                                                                                                                  | *****                                         |                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                     | 12740                                                              |                                                                                                                                                                                                                                                             |                                                                                                                                                                                              | į                                        |                                                                                                                                                                                                                                                                                 |                                                                                                                                                                     |
|---------------------------------------------------------------------|------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| WENICLE BITE PRI VENDOR MANE<br>BATE BIF THE BIF OTH VENDOR PART NO | VES STERER<br>NO 18000             | PRON .775 TO .860 6PH<br>BS. SPEC. RESUIREMENT                                                                                                                                                                                                                                                   | YES LICHEL PACIFIC<br>NO                      | O VALVE. LEAK MAS CAUS                                                                                                                                                                                             | D4-8004) STATED THAT P<br>CT AND ITS CONSESUENCE                                                                                                                                                                                                                                                                    | YES LIGHEL PACIFIC IND                                             | SURE WAS DROPPED. AN A<br>RE SURFACE DANAGED THE                                                                                                                                                                                                            | RT CENTER TO BE MONE A                                                                                                                                                                       | VES CADILLAC GASE<br>NO CO.<br>FCES-387A | D AS 0.00 NA AND SPECI                                                                                                                                                                                                                                                          | ACTIONS TAKEN BY 60/C                                                                                                                                               |
| WENICLE BITE                                                        | 9/100 00/10                        | NOW RATES VARIED                                                                                                                                                                                                                                                                                 | 5501 FACTORY<br>641106                        | HOLE IN THE BEAW<br>JRING ASSENDET.                                                                                                                                                                                | tence har blv-ab-c<br>of the discrepans                                                                                                                                                                                                                                                                             | -7107<br>041100                                                    | IN HYDRAULIC PRESS<br>THE INREGULAR BOT                                                                                                                                                                                                                     | AT PRODUCT SUPPO                                                                                                                                                                             | C41108 CO/C                              | ARENT WAS MEASUAE!<br>BPM MAK. CAUSED B                                                                                                                                                                                                                                         | SHOOMS PLANT. BY                                                                                                                                                    |
| DIF DATA SOURCE<br>PART NUMBER                                      | UTP-PET<br>87-04806-1              | SENT STEADY STATE I<br>GPH FOR TEST SPECIE<br>ON LIMITS.                                                                                                                                                                                                                                         | FAR<br>27-65514-617                           | LL ADJUSTMENT BCREW<br>WAS PROBABLY DONE DI                                                                                                                                                                        | N DATE 650224 (MEFE)<br>ORN THEIR PERSONNEL<br>F O-RINGS.                                                                                                                                                                                                                                                           | FAR<br>69 27-65512-605                                             | BOTH SHAFT SEALS WH<br>. BERVO CYLINDER AND                                                                                                                                                                                                                 | BENCH CHECK PERSONGL.<br>REPAIR AND OVERHAUL.                                                                                                                                                | UTP-ECT<br>87-04809-1                    | ME TEST THE MULL CU<br>PPECIFIED AS 1.3E                                                                                                                                                                                                                                        | E BEEN IMPONES AT Y                                                                                                                                                 |
| TEST/REPORT NUMBER<br>FAILED COMPONENT MAME                         | ETABLES<br>FLG: LIMITER VALVE      | FAILURE MODE-OUT-OF-TOLERANCE DURING PET LOW TEMPERATURE TEST, STEADY STATE PLOM RATES VARIED FROM .775 TO .860 6PM FOR TEST SPECIMEN 410-1875 LOT 85. SPEC. RESUIREMENT IS 1.030 6PM (MIN.). REFER TO FAILURE LOS 580-60E.  CORRECTIVE ACTION-ECP 7636 SUBMITTED TO RELAX SPECIFICATION LIMITS. | SLV-A9-04-4949F<br>SUSTAINER ACTUATOR, O-RING | FAILURE HOE-CONTAMINATION, HYDRAULIC LEARAGE FROM THE MULL ADJUSTMENT BCREW MOLE IN THE BERVO VALVE, LEAK MAS CAUS<br>Ed by a chipped o-ring on the bevel pin, damage to o-ring was probably done during assembly. | CORRECTIVE ACTION-VENDOR REPLY TO WEAR 7156-69 RECEIVED ON DATE 850224 (REFERENCE RAR BLV-A6-04-6004) STATED THAT P<br>RODUCTION AND INSPECTION SUPERVISORS WERE REPLESTED TO INFORM THEIR PERSONNEL OF THE DISCREPANCY AND 178 CONSEQUENCE<br>8. PROCEDUMES WERE CHANGED TO ASSURE PROPER INSTALLATION OF O-RINGS. | SLV-AS-D4-4851F<br>VERNIER ACTUATOR ABSERTAT, O-RIMES 27-85312-605 | FAILURE HOE-EXTERMAL LEARAGE. LEARED HYDRAULIC OIL PROM BOTH SHAFT SEALS WHEN HYDRAULIC PRESSURE MAS DROPPED. AM A<br>Ctuator booy wink a scored bore was used to reassemble the bervo cylinder and the irregular bore sumface damaged the<br>O-ring seals. | CORECTIVE ACTION-YER REPLY TO RAR BLV-AB-04-8008; THE BENCH CHECK PERSONEL AT PRODUCT SUPPORT CENTER TO BE MORE A MALTICAL OF PROBLEM AREAS DURING TERROOM OF ITEMS FOR REPAIR AND OVERHAUL. | PEANIER BERNO VALVE                      | PAILURE MOCE-OUT OF TOLERANCE-DURING FLUID HIGH TEMPERATURE TEST THE MULL CURRENT WAS MEASURED AS 0.40 MA AND SPECI<br>FIED AS 0.20MA ASLO CYLINDER FORT & PLOW WAS 1.48 GPM. AND SPECIFIED AS 1.38 GPM MAK. CAUSED BY INADERWIE GUALITY C<br>OMTROL ON THE PART OF THE VENDOR. | COMMECTIVE ACTION-IMPROVED SUALITY CONTROL PROCEDURES HAVE BEEN IMPOSED AT VENDOMS PLANT. BY ACTIONS TAKEN BY GD/C<br>A. LOT 47 ACCEPTED. REF. CTCTM MD. 886-7-501. |
| 8787EN<br>846-8787EN                                                | HTORAU.IC-A/B<br>BUSTAINER/YERNIER | FAILURE MODE-OUT-OF-TOLI<br>FOR TEST SPECIMEN 410-1<br>IS 1.050 GPN (NIN.), REFI<br>CORRECTIVE ACTION-ECP 70                                                                                                                                                                                     | MYDRAULIC-A/B<br>Bustaimeq/Vernier            | FAILURE MOE-CONTAMINAT<br>ED BY A CHIPPED O-RING O                                                                                                                                                                 | CORRECTIVE ACTION-VENDO<br>RODUCTION AND INSPECTION<br>B. PROCEDURES WERE CHANNEL                                                                                                                                                                                                                                   | MYDRAULIC-A/B<br>Bustaimer/Vernier                                 | FAILURE MOE-EXTERNAL LI<br>CTUATON BOOT WINN A BCOM<br>O-RING BEALS.                                                                                                                                                                                        | CORECTIVE ACTION-YER R                                                                                                                                                                       | MTDRAUL IC-A/B<br>Bustainer/Vermier      | FAILURE MODE-OUT OF TOLERANCE-DU<br>FIED AS D.EUMA ASLO CYLINDER PORT<br>ONIROL ON THE PART OF THE VENDOR.                                                                                                                                                                      | COMMECTIVE ACTION-IMPROVED BUNLITY CONTROL PR.<br>64. LOT 47 ACCEPTED. REF. CTCTM NO. 886-7-881.                                                                    |

SENERAL BYNAHICE CONVAIR BIVIBION

9961 NOT 51

|   |                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                               | !                                                                                                                                      |                                   |            |                                                                   | _                                      |
|---|-----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|------------|-------------------------------------------------------------------|----------------------------------------|
|   | 8787EM<br>848-3797EM                                                                                | TEST/REPORT NUMBER<br>FAILED COMPONENT HAME                                                                                                                                                                                                                                                                                                                                                                                 | DIF DATA BOURCE<br>PART NUMBER                                                | WENICLE<br>DATE BIF                                                                                                                    | 817E<br>71ME DIF                  | Z E        | VEHICLE BITE PRI VENDOR NAME DATE DIF TIME BIF OTH VENDOR PART NO |                                        |
|   | MTD9AULIC-A/B<br>BUSTAINAA/VERNIER                                                                  | SLV-AS-01-4838F<br>Venier Actuator Asrembly, O-Rimes E7-65818-608                                                                                                                                                                                                                                                                                                                                                           | FAR<br>8 E7-65318-608                                                         | 7107                                                                                                                                   | PACTORY                           | 5 8        | TES LIGHEL PACIFIC                                                | :                                      |
|   | FAILURE MODE-EXTERNAL L<br>MDERSIZED O-RIM63.                                                       | FAILUME MODE-EXTERMAL LEARAGE. ACTUATOR LEARAGE AFTER REPLACEMENT PER BURWEY 97-64. CAUSE MAS THE INSTALLATION OF<br>Derbized o-rimes.                                                                                                                                                                                                                                                                                      | ACEMENT PER SURVEY (                                                          | 7- <b>64</b> . CAW                                                                                                                     | #<br>#                            | <u> </u>   | TALLATION OF U                                                    |                                        |
|   | CORRECTIVE ACTION-MAP H THE PROGRAM, FOR HYDRAU ECTION ASSEMBLY PERSONNE APPLICABLE MANJEACTURIN    | COMPECTIVE ACTION-NAP MUSORES, APPROVED ON DATE 630110 AUTHORIZED ESTABLISHMENT OF EXTENDED LEAKAGE TEST AS PART OF THE PROGRAM, FOR HYDRALLIC ACTUATOR TESTING CHANGES PER NEW 682-7; PNEU/HYDR-483 DATED 641217, PNODUCTION AND INAP-CTION ASSENGLY PERSONNEL NERE INFORMED OF THIS FAILRE AND RESUESTED TO ASSUME THAT ALL CONFORENTS URED, CONFLY MITH APPLICABLE NAMERACTURING SPECIFICATIONS, REF-RAR 2LY-48-04-3869. | HORIZED ESTABLISHMED<br>HO 662-7, PMEU/HYDR-<br>REGUESTED TO ASSUME<br>-3868. | TABLIBHENT OF EXTENDED LEARAGE TEST AS PAI<br>PREU/HTDR-485 DATED 841817. PRODUCTION AND<br>TO ASSURE THAT ALL COPPORENTS USED: COPPLY | DED LEAK.<br>641217.<br>COSTOSENT | AGE 1      | EST AS PART OF<br>CTION AND INSP<br>D. COMPLY MITH                |                                        |
|   | MYDRAULIC-A/B<br>BUSTAINER/VERNIER                                                                  | 2733770<br>DISCOMECT-STAGING, POPPET                                                                                                                                                                                                                                                                                                                                                                                        | UTP-PET<br>27-36596-3                                                         | #110 <b>#</b>                                                                                                                          | CONTAIR                           | <b>2</b> 8 | VES PEACOCK<br>NO SIESO-S                                         | 1004                                   |
|   | FAILURE MODE-OUT OF TOL                                                                             | FAILUME MODE-OUT OF TOLERANCE. DURING A PRE TEST DISASSEDBLY IT MAS REVEALED THAT THE SURFACE FINISM ON THE POPPET<br>Keat was kepresentative of a 125 finism. Reg. 18 63 finism Ref. Task mistory Lob No. 642-7-003 5/N 404-0908.                                                                                                                                                                                          | LY IT WAS REVEALED !<br>REP. TASK HISTORY LA                                  | 7447 THE 94                                                                                                                            | 7-005 F                           | 19         | 04 THE POPPET                                                     | ······································ |
|   | CORRECTIVE ACTION-UNIT                                                                              | CH-UNIT REJECTED AND RETURNED TO VENDOR.                                                                                                                                                                                                                                                                                                                                                                                    |                                                                               |                                                                                                                                        |                                   |            |                                                                   | 1                                      |
|   | MYDRAULIC-A/B<br>Bustainer/Vernier                                                                  | 2733765<br>FLOW LIMITER VALVE                                                                                                                                                                                                                                                                                                                                                                                               | UTP-PET<br>E7-04200-1                                                         | <b>3</b> 0117 <b>9</b>                                                                                                                 | <b>79</b>                         | 5 8        | 67CAER<br>11000                                                   |                                        |
|   | FAILURE MODE-OUT-OF-ITLERANCE<br>(SPEC. MAX. 18 1.20). DYNAMIC<br>MILIAR FAILURE OCCURRED 6411EG.   | FAILURE MOE-OUT-OF-ITLERANCE DURING PET FLUID MIGH TEDP TEST. STEADY STATE FLOM BATE WARIED FROM S.218 TO S.24 BPM<br>(Spec. Max. IS 1.20). DYMANIC FLOM WAS S.28 GPM. TEST SPECINEM 407-3734; LOT 28. METER TO FAILURE LOS 894-7-003. BI<br>ILIAN FAILURE OCCURRED 641120.                                                                                                                                                 | EST. STEADY STATE P.<br>INEM 407-5734, LDT 1                                  | OH RATE W                                                                                                                              | AICD FRO                          |            | 15 TO 1.24 SPE<br>154-7-003. 11                                   |                                        |
|   | CORRECTIVE ACTION-ECP 7                                                                             | CORRECTIVE ACTION-ECP 7858 SUBMITTED TO RELAK SPECIFICATION LIMITS.                                                                                                                                                                                                                                                                                                                                                         | H LIMITS.                                                                     |                                                                                                                                        |                                   |            |                                                                   |                                        |
|   | MYDRAULIC-A/B<br>BUBTAINER/VERNIER                                                                  | ELV-8D-04-4946F<br>VERNIER ACTUATOR                                                                                                                                                                                                                                                                                                                                                                                         | FAR<br>60-61111-1                                                             | 7109                                                                                                                                   | PALC 8-4                          | 2 8        | PALE 8-4 YES LIGHEL PACIFIC                                       | :                                      |
| 1 | FAILURE MODE-EXTERNAL L                                                                             | FAILURE MOE-EXTERNAL LEAKACE. LEAKED 30 DROPS/NIMUTE DURIMS PROCEDURE RD-02708. CAUME MAG A COMBINATION OF MINIMAL<br>BAUCEZE OF 10 PER CENT AND O-RIMG MEAR COMBINED MITH PELT BLOCKANG.                                                                                                                                                                                                                                   | M6 PROCEDURE R0-0E7G<br>BLOCKAGE.                                             | e. CAURE Y                                                                                                                             | M                                 | 1          | ion of minimal                                                    |                                        |
| 1 | CORRECTIVE ACTIOM-PER M<br>R A REDEBICH OF ACTUATOR<br>D. THE VENDON HAD PURKED<br>PAILUME OCCUSED. | CORRECTIVE ACTION-PER MEMO 642-6-63/107 IN REPLY TO RAR BLV-8: -04-6001, THE DESIGN GAOUP RECOMMENDED TO THE CUSTONE<br>A a redesion of actuator seal glands. Gland dimensions were reviwed. O-rims size was considence coarect for the bland<br>D. The Vence had Purged his stock of dimensionally deficient parts after assembly of this actuator and before this                                                         | V-6: -04-6001, THE DE<br>REVINED. O-SING B11<br>NJ PARTO AFTER ABMEN          | SIEN GOOD                                                                                                                              | RECORE<br>HOENED CO               | 288        | TO THE CUSTONE<br>T FOR THE SCAN<br>D BEFORE THIS                 |                                        |

SENERAL DYNAMICS CONVAIR DIVISION

9941 NOT 51

A ......

DIFFICULTIES REVIEW-HTDRAWLIC SYSTEM-AIRBORNE

|                                             | 18788                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 20712                                             |                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                 | 001800                                       |                                                                                                                                                                                                                                                                                                                                                                        |
|---------------------------------------------|-------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| WENICLE BITE PRI WENDOR BANE                | YES CADILLAC GAGE<br>NO PCRE-397A   | FORNING SURVEY<br>INUM ALLONED I                                                                                                                                                                                                                                                                                                                                                                                                                                         | PACTONY VEB LIGHEL PACIFIC 888788                 | ALOMED). CAUSE                                                                                                                                                                                                                                                                  | THIS AMALTSIS                                                                                                                                                                   | VES LICHEL PACIFIC 001340                    | DURE, CAUSE WA<br>THE MICKELPLAT<br>CAUSE WAS AN O                                                                                                                                                                                                                                                                                                                     |
| 25                                          |                                     | TER PER<br>PH. BAN<br>PU. AC 6                                                                                                                                                                                                                                                                                                                                                                                                                                           | Şg                                                | T 18 A CTAIN                                                                                                                                                                                                                                                                    | 8                                                                                                                                                                               |                                              | PROCE<br>NEA 18<br>NACK.                                                                                                                                                                                                                                                                                                                                               |
| 11 te 01                                    | PACTORY                             | 1106 AF                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | PACTOR                                            | 98-98                                                                                                                                                                                                                                                                           | 100                                                                                                                                                                             | PACTORY                                      | A GEAR                                                                                                                                                                                                                                                                                                                                                                 |
| WENICLE<br>DATE DIP                         | -7107                               | PTANCE TEST<br>MEASUMED 6                                                                                                                                                                                                                                                                                                                                                                                                                                                | 643086                                            | OR NIME O                                                                                                                                                                                                                                                                       | RBOBEL KEN                                                                                                                                                                      | 7110                                         | T DURING AN<br>ET MAS A RA<br>POUND IN                                                                                                                                                                                                                                                                                                                                 |
| DIF DATA BOUNCE<br>PART NUMBER              | FAR<br>27-04209-1                   | RAGE DURING REACE<br>ARAGE AT 1000 PSIG<br>PBG: BATED 641204<br>EARAGE.                                                                                                                                                                                                                                                                                                                                                                                                  | FAR<br>27-05314-017                               | aboye normal (Plus<br>During Performanci                                                                                                                                                                                                                                        | , 1964 ASSEMENT PE                                                                                                                                                              | FAR<br>27-85312-805                          | LLY ON PISTON SHAF<br>LARGEST BORE DEFE<br>TAL CONTANINANT WA                                                                                                                                                                                                                                                                                                          |
| NUMBER<br>ENT HANG                          |                                     | NE INTERNAL LEA<br>KR BTAKING). LE<br>RAR BLV-89-04-3<br>LT HIGH TOTAL L                                                                                                                                                                                                                                                                                                                                                                                                 | TRANSDUCER                                        | OF 14 PERCENT<br>THE TRANSOUCER                                                                                                                                                                                                                                                 | TED MOVEMER 20<br>KER CONTONENTS.                                                                                                                                               | 3E18L7                                       | ID BEEN EXTERNA<br>BORE ROLEMESS.<br>HOT KNOW, A ME                                                                                                                                                                                                                                                                                                                    |
| TEST/REPORT NUMBER<br>FAILED COMPONENT NAME | 817-99-04-4944F<br>BERVO VALVE      | WAL, MARGIMAL EKCESSI<br>FER TARGET SCREW SOLD<br>FERNINED.<br>TE WOT CONTINED PER<br>D VALVE 411M MARGIMAL                                                                                                                                                                                                                                                                                                                                                              | SLV-AS-04-4837F<br>SUSTAINER ACTUATOR, TRANSDUCER | ERANCE. A STATIC GAIN<br>FRANSDUCER PROBE INTO<br>TRANSDUCERS).                                                                                                                                                                                                                 | ACTION-PER RAR SLY-A9-04-3886, DATED MOVEMBER 20<br>NEED FOR PROPER MATING OF TRANSDUCER CONFORENTS.                                                                            | DLV-99-G4-#926F<br>VERNIER ACTUATOR ASSENGLY | SARAGE, HYDRAULIC PLU<br>DAMAGED BY CYLÍNDER<br>VARENT METAL DEFECTB                                                                                                                                                                                                                                                                                                   |
| BUB-SYSTEM                                  | Mydraul IC-A/B<br>Bubtainer/Vermier | FAILUNE MOE-LEAK EXTERNAL, MARGIMAL EXCESSIVE INTERNAL LEAKAGE DURING REACCEPTANCE TESTING AFTER PERFORMING SUMMEY STALLUNE BY-64 (CHECKING FOR PROPER TARGET SCHEW BOLDER STAKING). LEAKAGE AT 2000 PSIG HEABURED 8.105 GPH. MAXIMUM ALLONED IS 0.10 GPH. CAUSE NOT DETERNINED.  CORRECTIVE ACTION-FAILUNE NOT CONFIRMED PER RAR BLY-89-04-3056, DATED 641204 60/C NOTIFIED CADILIAC 646E OF THIS FAILUNE AMALTSIS OF A SERVO VALVE HITM MARGIMALLY HIGH TOTAL LEAKAGE. | HTDRAULIC-A/B<br>BUSTAINER/VERNIER                | FAILURE MOE-OUT OF TOLERANCE, A STATIC GAIN OF 14 PERCENT ABONE NORMAL (PLUS OR MINUS S PERCENT 15 ALLONED), CAUSE<br>NAS 18SERITON OF WRONG TRANSDUCER PROSE INTO THE TRANSDUCER DURING PERFORMANCE OF SURVEY 65-62. (THIS SURVEY REPLACED COLLINS WITH CRESCENT TRANSDUCERS). | CORRECTIVE ACTION-PER RAR SLY-A9-04-3986, DATED MOVEDBER ED, 1964 ASSENDLY PERSONNEL MENE INFORMED OF THIS AMALTSIS AND OF THE NEED FOR PROPER MATING OF TRANSDUCER COMPONENTS. | HYDRAULIC-A/B<br>BUSTAINEG/VEGNIER           | FAILURE MODE-EXTERNAL LEAKAGE, HYDRAULIC PLUID BEEN EXTERNALLY ON PISTON SHAFT DURING AM E.O.P. PROCEDURE, CAUSE MA S A CUT O-RING MAIGH MAS DANAGED SY CYLINDER BORE ROUGHNESS. LARGEST BORE DEFECT MAS A RAISED AREA IN THE NICKELPLAT E. CAUSE OF PLATING AND PARENT METAL DEFECTS NOT RNOWN. A NETAL CONTANINANT WAS FOUND IN A GEAR RACK. CAUSE WAS AN OVERSIGHT. |

COMPECTIVE ACTION-PER RAR BLV-89-04-3982 SPECIAL GD/C ASSY. PERSONNEL MILL DO ALL GEAR. BACKLASH CHECKING TO PRECLU
DE GEAR RACK CONTANIMATION. PER RAR BLY-89-04-3883 LIONEL PACIFIC NOTIFIED TWEIR PLATING VENDOR OF THE PLATING DEFIC
T IN THE BORE AND EMPHASIZED GUALITY MORKNAMBHIP. AFTER A REVIEW, LIONEL PACIFIC FOUND PRESENT MANUFACTURING AND ASS
EMBLY PROCEDURES ADEGUATE TO PREVENT ACCEPTANCE OF DEFECTIVE PARTS AS FOUND IN THIS ACTUATOR. THIS MAS VENDOR REPLY YES CABILLAC GARE NO FCES-196A 3 2-00250-12 UTP-PET 27ASBTB BUSTAINER SERVO VALVE TO VCAR 7207-65. BUBTAINES/VERNIER HTDRAULIC-A/B

FAILURE MODE-OUT OF-TOLERANCE, DURING PET, AT -3E F RATED FLOW MAS 1.6E 6PH, AT -87 F RATED FLOW MAS 1.76 6PH, AT -34 F RATED FLOW MAS 1.37 6PM. MIMIRNUR ALLOMABLE 18 1.34 6PM. TEST SPECIMEN BIN 618-1008: LOT 25.

GENERAL DYNANICS CONVAIR BIVIBION

18 JON 1888

|   |                                                                                             | DIFFICULTIES REVIEW-NYDRAULIC SYSTEM-AIRBORNE                                                                                                                                                                                                         | VORAULIC BYBTEN-AIRD                                                               | ¥X                                |                                                                                 |            |                                                                   |                                       |
|---|---------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-----------------------------------|---------------------------------------------------------------------------------|------------|-------------------------------------------------------------------|---------------------------------------|
|   | STATEM<br>SUB-STATEM                                                                        | TEST/REPORT NUMER<br>FAILED COMPONENT NAME                                                                                                                                                                                                            | DIF DATA SOURCE<br>PART NUMBER                                                     | WEMICLE<br>DATE BIF               | 11 PE DIF                                                                       | O THE      | VEHICLE BITE PRI VEHOOR NAME DATE BIF TIME DIF OTH VEHOOR PART HO |                                       |
|   |                                                                                             |                                                                                                                                                                                                                                                       |                                                                                    |                                   |                                                                                 |            |                                                                   | :                                     |
|   | CORRECTIVE ACTION-FAILURE<br>T BE DUPLIC/TED. ALL UNITS                                     | CORRECTIVE ACTION-FAILURE NOT COMFIRMED. UNIT NAS TAKEN TO CADILLAC GAGE FOR PAILURE WERIFICATION. FAILURE COULD<br>BE DUPLICATED. ALL UNITS OF LOT ES IN STOCK AAVE BEEN REJECTED.                                                                   | TO CADILLAC GAGE FOR<br>EJECTED.                                                   | PAILURE WER                       | 11F1CA 710                                                                      | :<br>:     | TLURE COULD NO                                                    |                                       |
|   | HTD4AULIC-A/B<br>Bustaimea/Vermier                                                          | A-89-04-49E2F<br>FEEDBACK TRANSDUCER                                                                                                                                                                                                                  | FAR<br>E7-04211-1                                                                  | 120F                              | FACTORY                                                                         | 55         | 7ES CRESENT EMSIME<br>7ES ERIMS<br>MC-67P-4E                      | 94                                    |
|   | FAILURE MODE-SMORT - THE                                                                    | - THE TRANSDUCER NOULD NOT HULL: CAUSED BY AN INTERNITTANT BHORTING OF A PORTION                                                                                                                                                                      | ED BY AN INTERNITIAN                                                               | # PECRETIME C                     | A A 908.1                                                                       | 8          | OF THE COIL.                                                      |                                       |
|   | CORRECTIVE ACTION- VENDOR                                                                   | INS INFORMED OF                                                                                                                                                                                                                                       | FAILURE AND AMALYSIS IN RAR-A-88-04-3980.                                          | .3960.                            |                                                                                 |            |                                                                   |                                       |
|   | HTDRAUL IC-A/B<br>BUSTAINER/VERNIER                                                         | SLV-A9-14-4819F<br>COMECTOR, PIN-HINE HANNESS                                                                                                                                                                                                         | FAR<br>82-40041-004                                                                | 7106                              | FACTORY                                                                         | 151<br>153 | 7ES BENDIX<br>7ES GP3106E-1034-8<br>8                             |                                       |
|   | FAILURE HODE-STRUCTURAL.<br>E P.UG BACKSHELL. TORQUE.                                       | FAILUME MODE-STRUCTURAL, PLUG PINS MERE FOUND SMORTED, WIRES MERE SMORTED, CAUSE WAS EXCESSIVE TORSUE APPLIED 10 TM<br>E P.UG BACKSMELL, TOKSUE CRACKED TWE POTTING AND BLIPPED WIRE INSULATION BACK ENDUGM FOR MIRES TO TWIST TOGETHER AND<br>SMORT. | IRES NERE SHCATED. CL<br>WIRE INSULATION BACK                                      | LINCUEM FOR                       | ESSIVE T                                                                        | A STATE    | APPLIED TO TH                                                     |                                       |
|   | CORFECTIVE ACTION-FAILUR                                                                    | CORECTIVE ACTION-FAILURE CONFIRMED. BAR 34.V-A8-04- 3988 REQUESTED NAMERACTURING PERSONNEL BE CAUTIONED NOT TO TITM<br>Tem Plugs at the backshell. This rar and far 34.V-a8-04-4818 Nere Circulated to all affected 3400 Personnel.                   | REQUESTED HANNFACTUR<br>19 NERE CIRCULATED TO                                      | URING PERSONEL<br>TO ALL AFFECTED | 10<br>10<br>10<br>10<br>10<br>10<br>10<br>10<br>10<br>10<br>10<br>10<br>10<br>1 | S A S      | AUTICHED NOT TO TITH<br>PERSONNEL.                                | <del>-</del>                          |
|   | HYDRAULIC-A/B<br>BUJTAINER/VERNIER                                                          | ETASOTO SUSTAI ER LERVO VALVE                                                                                                                                                                                                                         | UTP-PET<br>87-04208-1                                                              | <b>41016</b>                      | )<br>9                                                                          | 50         | CADILLAC GAGE                                                     | :                                     |
|   | FAILURE MODE-OUT OF TOLE.                                                                   | FAILURE HODE-OUT OF TOLERANCE, LURING PET, 165 DEG. F. PROOF CTCLE THE MULL CURRENT MAS MIMUS 0.35 MILLIANPS (MAXIM<br>M ALLOMABLE PLUS OR MINUS 0.20 MILLIANPS. TEST SPECIMEM S/M 410-15000, LUT E4.                                                 | NOOF CYCLE THE MULL (<br>8/N 410-1000, LUT &4.                                     | CARRENT WAS                       | M. MUS 0.                                                                       | 2 2        | LLIANTS INAXIN                                                    |                                       |
|   | CUGRECTIVE ACTION-ALL UN                                                                    | UNITS OF LOT 24 WERE REJECTED.                                                                                                                                                                                                                        |                                                                                    |                                   |                                                                                 |            |                                                                   |                                       |
| • | MTD4AU.IC-A/B<br>BUSTAIMER/VERNIER                                                          | LV-80-04-4820<br>BUSTAINER ACTUATOR ABBENDLY                                                                                                                                                                                                          | 7AR<br>87-89514-817                                                                | 3130                              | £                                                                               | <b>2</b> 0 | TES LIGHEL PACIFIC                                                | :                                     |
|   | FAILURE MOE-EXTERNAL LEAKAGE HYDRAULIC PLUI                                                 |                                                                                                                                                                                                                                                       | D LEAKED AT BERMOVALVE AND ACTUATOR INT<br>THE ACTUATOR WHERE AN O-RIM6 WUBT BEAL. | IOR INTERPAC<br>F BEAL.           | E. FALLU                                                                        | #          | ATTRIBUTED TO                                                     |                                       |
| • | CCARECTIVE ACTION-MENO CARR 146-6-25;-64 DA<br>F MANOLING AND ABBENGLY TECHNIEMES ARE UNEO. | ON-MEMO CARR 148-9-35;-64 DATED 641EDE IMPORMED MAMUFACTURING OF THIS AMALTSIS TO ASSURE THAT COAREC<br>Ssemely Techniques are used.                                                                                                                  | FORNED MANUPACTURING                                                               | OF THIS AM                        | 1,1818 10                                                                       |            | ME THAT CORREC                                                    | · · · · · · · · · · · · · · · · · · · |
|   |                                                                                             |                                                                                                                                                                                                                                                       |                                                                                    |                                   |                                                                                 |            |                                                                   |                                       |

PAGE 0174

GENERAL BYNAMICS CONVAIR BIVISION

11 JUN 1166

\*

3.1

DIFFICULTIES REVIEW-HYDRAULIC SYSTEM-AIRBOPHE

| 81876X<br>808-816X                                                                                                                               | TEST/REPORT NUMBER<br>FAILED CONFONENT NAME                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | DIF DATA BOUNCE<br>PART NUMBER                                                                                | VEHICLE B                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | MEMICLE BITE PRI VENDOR NAME<br>DATE BIF TIME BIF OTH VENDOR PART NO                                                               |                                         |
|--------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|
| HIDAAULIC-A/B<br>Bubtainer/Vernier                                                                                                               | CT-88-04-166<br>ACT-UATOR                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | FAR<br>27-88314-810                                                                                           | 1460 FAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | PACTORY TES LIGHEL PACIFIC SELLES                                                                                                  | :                                       |
| FAILURE HODE-BIRUCTURAL. ON MAS FOUND INSIDE OF TH F THE FEMALE THREADS IN T                                                                     | PAILUME MODE-BIRUCTURAL, DURING DIBASSENGLY OF THE SERVOCYLINDER FOR FAILUME ANALYSIS, ALUMIMUM SHAVING CONTAHINATI<br>On was found inside of the mechanism, analysis revealed that the contahination wal due to underbized root diaheter o<br>F the female threads in the actuator body caused by a norm cutting tool used by the vendor                                                                                                                                                                                                                                                                                                                              | INDER FOR FAILUNE AN<br>THE CONTANTION N<br>JITTIME TCOL UNED BY                                              | MALYBIB, ALUM)<br>MAC DUE TO UM<br>FME WEMBOR                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | INM BHAVING CONTANINATI<br>KRBIZED ROOT DIANETER O                                                                                 |                                         |
| CORRECTIVE ACTION-IT MAD HINE TOOLS.                                                                                                             | CORECTIVE ACTION-IT WAS RECOMMENDED THAT THE VENDOR IMPROVE INSPECTION OF THREAD DIMENSIONS AND THREAD-CUTTING MAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | I INDPECTION OF THRE                                                                                          | AD DINENBION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | AND THREAD-CUTTING NAC                                                                                                             |                                         |
| htorau.ic.a/3<br>Bustainer/Vernier                                                                                                               | CT-98-04-146<br>ACTUATOR,ASSEMBLY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | FAR<br>27-05314-019                                                                                           | 1460 36A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | YES LIGHEL PACIFIC                                                                                                                 | •                                       |
| FAILURE HODE-STRUCTURAL. DJUSTHENT JAMMUT WAS FOUND T-SCREWS IN THE END GLAND CONDITION OF THE GLAND CTING ABOVE THE END GLAND BHYST SET-SCREWS. | FAILURE MODE-STRUCTURAL. DUE ME ADJUSTMENT OR THE ACTUATOR PER EOF 315.5 PARAGRAPHS 3.8.5 THROUGH 3.8.4 THE GLAND A DJUSTMENT JAHRUT WAS FOUND OVERTORBUED. RECEINED FOUND-PEET OF TORBUE TO LODGEN. IN ADDITION, ONE OF THE THO SE THE GLAND SURFACE. THE OVERTORBUED CONDITION OF THE GLAND SURFACE. THE OVERTORBUED CONDITION OF THE GLAND ABJUSTMENT JAHRUT COLLD NOT BE CONFIDED AS THE NUT HAS LODGENED AT ETA. THE AET-SCREW PROJE CTING ABOVE THE END GLAND NAS CONFIRMED AND MAS CONFIRMED. | ER EOP 315.5 PARAGE<br>EET OF TORGUE TO LC<br>THREE THREADS ABOV<br>MED AS THE NUT HAS<br>MM ERROR BY REVERSI | APHS 3.8.3 To COEN. 18 ADDI<br>T. THE GLAND 3 LOSSIND A TO THE POSITION AT EMB THE POSITION AT EMB THE POSITION AT EMB THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITION AT THE POSITI | MOUSH 3.4.4 THE GLAND A<br>TION, ONE OF THE THO SE<br>UNFACE, THE OVERTORGUED<br>TR. THE MET-SCAEN PROJE<br>ON OF THE LONG AND THE |                                         |
| CORRECTIVE ACT!ON-NUME.                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                    | <del></del>                             |
| YTORAULIC-A/D<br>BUBTAINEA/VERNIGA                                                                                                               | LV-96-10-246F<br>TUBE ABBENDLY, B-NUT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | FAR<br>69-66036-7                                                                                             | 2000 ETA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 7£8 66/C<br>80                                                                                                                     | • • • • • • • • • • • • • • • • • • • • |
| FAILURE HIDE-LEAR-EXTERM                                                                                                                         | FAILURE PROESERANSERMAS COUPLING MUT WAS POIND WITH DACK WALL DEFORMED BUE TO OWER TORGUIND.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | WILL DEFONED BUE T                                                                                            | D OWER TORBUI                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | i                                                                                                                                  |                                         |

a side

FAILURE MODE-STRUCTURAL. INSPECTORS REPORT 1887DE STATED THE BERNOCTLINDER ASSEMBLY SHOWED EVIDENCE OF SEING B ROPPED DURING SHIPPING OR HANDLING. A PRESSURE TUBE WAS FOUND SENT AND NICKED, AND SHOWED SUKFAL, ABRASION, PUNCTION AL CHECAS SHOWED FIAT THE ASSEMBLY PERFORMED WITHIN SPECIFICATION. THE DANAGE MAY MANE OCCURRED AFTER THE SERVOCTLIN DER WAS REMOVED FROM THE VEHICLE, OR OTHER POST-REJECTION MANDLING.

<u>.</u>:

TE LIDEL PACIFIC

FAR 27-65214-619

COMMECTIVE ACTION-60/C PERSONNEL MENE CAUTIONED TO USE PROPER TORBUING PROCEDUMES.

CT-98-04-159 ACTUATOR ASSENDEN

HYDRAULIC-A/D Bubtainer/Vernier

CORRECTIVE ACTION-IT WAS RECOMMENDED THAT ALL PERSONNEL HANDLING. INSTALLING OR WORKING AN YMD INSTALLED SUSTAINGS

|                                                                                     |                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | • 494                                                      |                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                     | ****                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-------------------------------------------------------------------------------------|-------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|-----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| MAICLE SITE PAI VENDOR NAME DATE BIP TIME BIP OTH VENDOR PART NO                    | FIGHE PACIFIC BABBS                 | MESPONSE AT 0. PEEDSACK TEN AIG SENVANDL FIERS. THRESHO E SET: THERE W                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | TUAL CONTOCENT<br>IN CONTROL SIEN<br>NING ON MODIFY<br>NOV. LVE FREGU                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | VES LIGHEL P.C. 71C 487638<br>NO 2776-100                  | NON THE LEAKIN<br>BOTH O-RING &<br>INCH. MEP. PP                                                                                                                                                                                                                                                                                                                                                  | fat fa 654-E-                                                                                                       | TES CADILLAC GAGE OF POSTS OF PCES-387A | REGULACIONES<br>N. AND INDICATE<br>NINATION AND P.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| - 1<br>- 5                                                                          | 5 5                                 | 2 4 1 5 E                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 2 0                                                        | 74. TAN. 5                                                                                                                                                                                                                                                                                                                                                                                        | Ş                                                                                                                   | 20                                      | 202                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 71M 017                                                                             | ¥.                                  | A BISCAEL AK FLATEL INSTEAD OF THE SERVO                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | DE MACRE I<br>ESFORM ACI<br>ES FOR REC<br>ES FOR REC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | CONVAIR                                                    | THE O-AI<br>REVELLED<br>PR RINGS                                                                                                                                                                                                                                                                                                                                                                  | R RENDRY.                                                                                                           | PACTORY                                 | VOCTLINGE<br>FOREE AT<br>AT GO CPS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| WAICLE<br>DATE DIF                                                                  | 1.00<br>1.00<br>1.00                | EMIBITED E-MAYE PE, MPLIFIER HITH IOC TI IPIER, BU                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | S REJECTION SANCELY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY P | 600119                                                     | EALED THA<br>AND BONE<br>635 PLUS                                                                                                                                                                                                                                                                                                                                                                 | VENDON PO                                                                                                           | 941008                                  | T 145 96 91 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| DIP DATA BOUNCE                                                                     | FAA 87-010                          | , THE ACTUATOR ASSEMBLY. H OF PEEDACK SIGNAL SIN FROM AN IOC-TYPE SERVON ANE SET PCA OPERATION V                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | LUATING THE BABIB OF THI<br>IFFERDICES IN ACTUATOR A<br>IGH PERBONNEL EXAMINE PO<br>INCREABING BERNOVALVE TH                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | UTP-PET                                                    | ILUEE DUE TO LEARAGE MEN<br>CHECK OF ACTUATOR PLATOR<br>UNIT 0.93E INCH. MEG. 0.                                                                                                                                                                                                                                                                                                                  | LOT 1 AND BEND BACK TO                                                                                              | FA9<br>E7-04209-1                       | C-VALWE PAZ_ED TO ACTUATO OF Q.E. NA. THE PHASE LAR PARE BY BE BY CALLED TO INCLATE THE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| AUG-2721EN FALLE COMPONENT NAME PART HUMBER DATE DATE DATE DATE DATE DATE DATE DATE | C1-88-04-188<br>ACTUATOR, BUSTAINER | FAILURE MOLTON OF TOLERANCE, DUKING BOOSTER CHECKOUT, THE ACTUATOR ASSEMBLY EDMISITED A DISCREPANT RESPONSE AT D. S. CPS. FAILURE MOLTAIS CONTINUE, PEDMACK TEAD STRUKT SINCTHANGE FEEDBACK TEAN SHALL SINCTHANGE FEEDBACK TEAN SHALL SHALL SINCTHANGE FOR THE SEE SERVOMMEL SHALLS CONTINUED WITH CONTROL SIGNALS FROM AN IOC-TYPE SERVOMMELIFIER THATESTEED OF THE SERVOMMELIFIERS. THATESMO WITH TOC TIME SERVOMMELIFIERS, THATESMO SERVOMMELIFIERS, THATESMO WITH CONTROL SIGNALS FOR AN AIGHTINE SERVOMMELIFIERS. THATESMO SERVOMMELIFIERS AND SELVINGE WAS NOT THOSE A SASEMBLY FAILURE. | CONFICITY, ALTION-NO FAILUME, DESIGN PERSONEL ARE EVALUATING THE BASIS OF THIS REJECTION WERE NO ACTUAL CONFORMATALIST FAILUME, AND RESULS THAT THEY EVALUATE THE DIFFERENCES IN ACTUATOR ASSENDENT PERFORMING WITH CONTROL SIGN ALL ACAINST TO: THE SERVOANTIFIERS, MANE DESIGN PERSONSEL EXAMINE POSSIBILITIES FOR REDESIGNING OR MODIFY ING ALGATYE SERVOANTIFIERS TO REDUCE THEIR EFFECT OF INCREASING SERVOALNE THRESHOLD AND REDUCING SERVOY, LME FREGUENT ALSFONSE.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 69A3E97.1<br>VERNIER HYDRAULIC ACTUATOR, O-RING ET-08574-3 | FAILUME M.CE-OUT OF SPECIFICATION, INVESTIGATION OF FAILURE DUE TO LEARME REVEALED THAT THE O-RIN, FROM THE LEAKIN<br>+ SIDE WES MOSH HORE THAN THE OTHER ONE, A DIMENSIONAL CHECK OF ACTUATOR PISTON AND BORE REVELED THAT BOTH O-RING +<br>FUNCE, C. DIMENSION MERE OUT OF TOLERANCE, MEADING ON UNIT 0.932 INCH. REG. 0.633 PLUG OR RINAG 0.005 INCH. HEF. FP<br>IN M. FSITE SWI SEN 404-1747. | COMMECTIVE ACTION MELECT FIL UNITS ASSOCIATED WITH PET LDT 3 AND SEND BACK TO VENDON POR RENORM, REF. FAR FR 854-8- | LV-95-04-4673-F<br>BERVO VALVE          | FARE THE SERVICED DURING OPERATION. THE WERNIER BERVO-VALVE FAZLED TO ACTUATE THE SERVECTLINDER PER REGUIREMENTS  A CAT SOLVE WALL OFFSET MASSOLZER AS WARE ALCOMBLE OF G.E. MA. THE PHASE LAS WAS GO SERVED AT SOCPA AND INDICATE AND AND APPROPANTE SIGNATORING CORRECT PRASE LAS PER SPEC. 87-04212 IN SO DESCRIBED AS BRAINMATION AND APPROPANTE SIGNATORING. SALENDER AND INDICATE AND ADDRESS AS ASSOCIATED AND ADDRESS AS APPROPANTE SIGNATURE.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Mayor Colors                                                                        | HTORAULIC-A/B<br>BUBIAIMAY/VERHIER  | FAILURE MULL-DOT OF TOLERANCE, DUKING S CPS. FAILURE ANGLES CONTRINGS THE SOURCE SINGLING NOT TRACES OF SECONDAL MITH LD VO OUT THEREASE FOR OPERATION MITH AS NO SULVOLLINDER ASSEMBLY FAILURE.                                                                                                                                                                                                                                                                                                                                                                                               | CONSTITUTE ALTON-ND FA<br>FALCHE OLIGHED, AND<br>ALS FICH ALE ACAINST TO<br>196 ALG-179E SERVONNALIE<br>EMLY RESPONSE.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | HYDANLIC-A/B<br>BUSTAINER/VEHNIER                          | FAILURE MIDE-OUT OF SPECIFIC<br>- SIDE WAS MORN MORE THAN TH<br>- SUCE O.E. DIMENSION MERE OU<br>R MM FS.T.R SWI B/N 406-1747.                                                                                                                                                                                                                                                                    | COMMECTIVE ACTION-REJECTATION                                                                                       | ATDRACE IC. A/B                         | MACHINE WODE-FAILED DING GENERAL OFFSET OF SET 
SENER, JOHNICE CONVAIR DIVISION

1901 WAT 41

## CONVAIR DIVISION

|                                                                                                                                               | DIFFICULITY JEVIEW-HYDRAULIC BYBTEM-AIRBORNE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | RAULIC STSTEN-AIRBO                                                                                                    | ĭ                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                               |          |                                                                                    |       |
|-----------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|----------|------------------------------------------------------------------------------------|-------|
| 87816H<br>848-87876H                                                                                                                          | TEST/REPORT HUMBEP<br>FAILED COMPONENT K                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | DIF DATA BOUNCE<br>PART NUMBER                                                                                         | VEMICLE<br>DATE DIF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 417E                          | 2 5      | VENDOR NAME<br>VENDOR PART NO                                                      |       |
| MYDEAULIC-A/B<br>BUSTAINER/VERNIER                                                                                                            | A-AB-O4-48081<br>FEDBACK TRAMSDUCER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | FAR<br>87-6-211-1                                                                                                      | 78070                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | FACTORY                       | 20       | VED CREDCENT KINGIN<br>NO EERING<br>HC-67P-4E                                      | •     |
| FAILURE MOE-OUT OF TOLER<br>AILURE CAUSE 19 NOT KNOM.                                                                                         | OF TOLERANCE. HIGH MULL VALUE OF 60 MV. MAXIMUM ALLOMBLE ID 50 M.V. AMALTDID WAS NOT COMPLETED. P<br>37 RNOMM.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | ANIMUM ALLOMBLE 18                                                                                                     | 80 M.Y. A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | ML7813 W                      | 9        | COMPLETED. P                                                                       |       |
| CORRECTIVE ACTION-FAL                                                                                                                         | CORRECTIVE ACTION-FAILURE NOT CONFIRMED- NO CORRECTIVE ACTION TAKEN.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | ION TAKEN.                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                               |          |                                                                                    |       |
| HYDRAULIC-A/B<br>BUSTAINER/VERNIER                                                                                                            | etastes<br>Vernier flom Limiter Valve                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | UTP-PET<br>E7-04E06-1                                                                                                  | *****                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <b>3/09</b>                   | 20       | \$ TEREN<br>\$ \$ 500                                                              | 90948 |
| FAILURE MODI-C:T OF AND E.EG CPH. REMPECTE 41018 AND FA1030.                                                                                  | FAILUNE WOL-OUT OF ULERANCE. DURING P.E.T. TEBT. THE FLOW RATES AT EGODAND ETOD PSIS BACK PHESSURE NERE E.13 GPM<br>AND E.EG CPM, REVPECTIVELT. (SPEC. REQUIRENENT E.G WPM). TEST ON S/N 407-1734, LOT ES. SINILAR FAILUNE OCCURRED ON 8<br>A1018 AND FA1030.                                                                                                                                                                                                                                                                                                                                                                                              | M RATES AT EGGGAND  <br>ST ON S/M 407-1734,                                                                            | 700 P814 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | LACK PRESI                    | 33       | CCURRED ON 0                                                                       |       |
| CORRECTIVE ACTION-ECP                                                                                                                         | CORRECTIVE ACTION-ECP 7888 SUBMITTED TO RELAX CONFORENT SPECIFICATION LIMITS.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | ECIFICATION LIMITS.                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                               |          |                                                                                    |       |
| MYDRAULIC-A/B<br>SUSTAINER/VERNIER                                                                                                            | LV-A0-10-263-F<br>Filter, O-RIMG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | FAR<br>27-06564-5                                                                                                      | 226079<br>0062                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | FACTORY                       | 20       | 763 PUROLATOR<br>NO 64567                                                          | =     |
| FAILURE MODE-LEANAGE<br>FOUND TO BE DAMALED.                                                                                                  | FAILURE MOE-LEANAGE EVIERNAL-FINAL CHECKOUT REPORTED LEANAGE OF FILIER UNDER BTATIC MYDAAULIC PRESSURE, O-RING UND FOUND TO BE DAMMED. NO PREVIOUS FAILURES IN PRIOR & MONTHS.                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | AGE OF FILTER UNDER<br>8-                                                                                              | STATIC MY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | AAULIC P                      | 200      | if. O-nine uns                                                                     |       |
| CORRECTIVE ACTION-VENDON CAUTI<br>REVENT DANAGE FROM SHARP EDGES.                                                                             | CORRECTIVE ACTION-VENDOM CAUTIONED INSPECTION AND ASSENDLY PERSONNEL TO TAKE NOME CARE WHEN INSTALLING O-RINGS TO P<br>EVENT DANAGE FROM SHARP EDGES.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | PERSONNEL TO TAKE I                                                                                                    | ORE CARE 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | MEN 1457.                     | 3        | 6 O-RIMES TO P                                                                     |       |
| HTDRAUL IC-A/B<br>BUSTAINER/VERNIER                                                                                                           | SLV-AB-D4-4898-F<br>TORGUE MOTOR                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | FAR<br>60-65311-1                                                                                                      | \$903<br>\$40922                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | FACTORY                       | 20       | YES LICHEL PACIFIC NO                                                              | 3     |
| FALLURE MODE-OUT OF 11 E. TOO HIGH MITH A VALUE THE NULL WAS 400 MV VS FLAPPER AND DEFORMED CO D. THE COMDITION OF THE LERO ADJUST MEDGE ARE. | FAILURE MODE-OUT OF TOLERANCE, THE OUTBOARD VERNIER SERVOCYLINDER FAILED DUE TO A NULL SHIFT, FEEDBACK VOLTAGES MER E TOO HIGH MITH A VALUE OF 375 MV RECORDED VS A MAX ALLOMABLE OF 250 MV DURING INACTIVE TESTING, FUL. ACTIVE TESTING THE NULL MAS 400 MV VS MAX ALLOMABLE OF 300 MV. EXTENSIVE TEST ANALYSIS ATRIBUTED THE FAILURE TO BENT TORSUE MOTION FAPPER AND DEFOMED COMDITION OF THE SPRING GROOVES. THE FLAPPER WAS BENT BEFORE AND DURING ASSEMBLY AS TESTS PROVE D. THE COMDITION OF THE FLAPPER, SPRING GROOVES IN THE PRILLED MOLES IN THE MINGE AND SCRATCHES ON THE LERO ADJUST MEDICATIVE OF POOR GUALLITY COMINGL DURING MANUFACTURE. | TLINGER FAILED DUE. LE OF ESG NV DURING EST ANALYSIS ATRIBIL LAPPER WAS BENT BEY PER, THE DRILLED MG MING MANURACTURE. | TO A NULL SINGETTYEE THE PART AND DUVINE THE PART AND DUVINE THE PART AND DUVINE THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND THE PART AND TH | FESTING. 611 NG TO 11 NG ASSE | TC: BENT | K VOLTAEES HER<br>CTIVE TESTING<br>TORSUE MOTOR<br>AS TESIS PROVE<br>STCHES ON THE |       |
| CORRECTIVE ACTION-VENI                                                                                                                        | CORRECTIVE ACTION-VENDOR WAS ADVISED OF PROBLEM AND TO IMPROVE THEIR QUALITY CONTROL IN THIS AREA. IN JAM 1888 THE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | ACL PARTS INCLUSED                                                                                                     | CONTROL IN                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 1418 ARE.                     | . A      | JAN 1068 THE                                                                       |       |

SENERAL BYNAMICS CONVAIR BIVISION

18 1UN 1988

|                                                                                                                  | DIFFICUATIES AEVIEW-NTORAULIC STREEM-AIRBOANE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | NULIC STATEN-AIRBORN                        | <b>~</b>                |              |                                       | ſ       |
|------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|-------------------------|--------------|---------------------------------------|---------|
| 84.83EE                                                                                                          | TESTAEPORT NUMBER<br>PAILED COMPONENT NAME                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | DIF DATA BOURCE<br>PART NUMBER              | 918 9170<br>MENICLE     | TINE DIP OTH | PRI VENDOR NAME<br>OTH VENDOR PART NO |         |
| HTDRAULIC-A/B<br>BUSTAIMER/VERNIER                                                                               | 6843297.1<br>WERHIER HTDRAULIC ACTUATOR                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | UIP-PE1<br>87-08574-3                       | 138070                  | COMMAIN      | TES LIGHEL PACIFIC<br>NO 8778-100     |         |
| FAILURE MODE-LEAK-ERTERH<br>MIT WAS FOUND TO BE B ML.<br>T B/M 438-1747.                                         | IK-EXTERNAL. DURING LOW TEMPERATURE TEST AT MIMUS 30 DEG P. THE LEMANGE PROM THE RIGHT SIDE OF THE U. DE N. FOR 23 FULL STROKE CYCLES. REF. PPR MR 75.723W                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | NIMUS 30 DES F. THE<br>ONE DACK PER 25 FUL  | L STROKE                | CYCLES. RE   | FOR ME TAITED                         | 2.3     |
| CORRECTIVE ACTION-UNKNOWN WYDRAULIC-A/B SUSTAINER/VERNIER                                                        | DORACTIVE ACTION-UNERGOM: WENCH TO PARTICIPAL IN FALLOW INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR INCESTOR I | U19-PET<br>27-04209-1                       | 10001                   | 3/ <b>9</b>  | TES CADILLAC GASE                     |         |
| FAILURE MODE-OUT OF TOLERANCE, BURING TEST SPECIMEN MAY 407-EGEO, REFER TO CORRECTIVE ACTION-NO ACTION REBUIRED. | FAILURE MOCE-OUT OF TOLERANCE. DURING PET TEST THE MALL CURRENT WAS LES MILLIAMPS LOPECIPICATION IS .20 MILLIAMPS).<br>Test specimen was 407-2020; refer to fir 367. Similar Pailure Occurred 640010.<br>Corrective action-no action required.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | MENT WAS LES MILLIAN<br>ME OCCUMPED 040010. |                         | 71CA 71G     | IS .20 MILLIAMPS)                     |         |
| HYDDAULIC-A/B<br>SUSTAINER/VERNIER                                                                               | SLV-AS-04-4802F<br>WENNER ACTUATOR, O-RING                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | F/<br>E7-65312-608                          | 71.04<br>640@@@         | PAC 108 V    | TES LIGHEL PACIFIC                    | •       |
| FAILURE MODE-OUT OF TOLE<br>ALLONED 13 130 MILLINOLTS<br>OMN DEFECT NAT HAVE CONTR                               | FAILURE MODE-OUT OF TOLERANCE. WERNIER B PITCH MALL PRED BACK VOLTAGE BHIPTED 160 TO 170 MILLIVOLTS. MAXIMUM BHIPT<br>ALLORED 13 150 HILLIVOLTS. CAUSED BY DANKEED O-RIMES ON THE PEED BACK END OF THE POMER STAGE BLEEVE. SOME OTHER UMAN<br>OMM DEFECT MAT HAVE CONTRIBUTED TO THE MALL BHIPT.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | CH VOLTAGE BHIFTED (TELL) BACH END OF THE   | 140 TO 178              | AGE BLEEV    | is sort olien antra                   |         |
| CORRECTIVE ACTION-CADILL DS MAVE BEEN REVIEWED AND                                                               | COMECTIVE ACTION-CADILLAC GAGE ANSWER TO MAR BLY-AB-DA-3866 STATED THAT ABBENDLY INSTRUCTIONS AND INSPECTION NETHO<br>5 have been reviewed and revised to prevent dankeing O-Rings.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 8 87ATED THAT ASSENDED.                     | LT EMBTRU               | CTIONS AM    | INSPECTION NETH                       |         |
| MYDRAULIC-A/B<br>BUSTAINE4/VERNIER                                                                               | ETASSE .<br>VERNIER BERVO VALVE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | UTP-PET<br>ET-04209-1                       | 738070                  | ٠<br>•       | VES CADILLAC GAGE<br>NO FCEG-387A     | • 11.70 |
| FAILURE MODE-OUT OF TOLE<br>INITAR FAILURES OCCURRED<br>1889: LOTS 44 AND 45 RESP                                | FAILURE MOETOUT OF TOLEARME. DURING PET TEST WALL CURRENTS MERE OUT OF TOLERANCE (185 MA VS .20 SPECIFICATION). S<br>Inilar Pailures occurred on 64/8/28, 94/08/11; 64/08/18; AND 64/08/28: TEST SPECIMENS WERE B/N 608-1817 AND 8/N 404-<br>1888: Lots 44 and 45 respectively. Refer to Yar 3168.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 6 MERE OUT OF TOLER!<br>64/00/22. TEST 8PEI | 19CE (-88<br>CINESO NES | 40 H/8 3     | ##C1F1CaT10M1.                        | • 1     |
| CORRECTIVE ACTION-BUNKE                                                                                          | CORRECTIVE ACTION-SURVEY INSTRUCTIONS 128-64 ISSUED TO REJECT ALL UNITS FROM LOT 44 ING. LOT 45.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | CT ALL UNITE PRON LA                        | 07 64 1W                | .01          |                                       |         |

GENERAL DYNAMICS CONVAIR DIVISION DIFFICULTIES REVIEW-MYDRAULIC SYSTEM-AIRBORNE

15 JUN 1966

. . . . . . . . . . . .

|                                                                   | •                                     |                                                                                                                                                                                                                  |                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | • • • • • • • • • • • • • • • • • • • •           |                                                                                                                                                                                                                        |                                                                                                                                                                  | 000800                                        |                                                                                                                                                                                                                                                                                                                                                            |
|-------------------------------------------------------------------|---------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| A                                                                 |                                       |                                                                                                                                                                                                                  | NC IFIC                                               | 7 A A A A A A A A A A A A A A A A A A A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                   | 17. TE                                                                                                                                                                                                                 | #1 VA.                                                                                                                                                           | CIFIC                                         | MIS AN<br>CPENIE<br>MERVOC                                                                                                                                                                                                                                                                                                                                 |
| VENDOR NAME                                                       | 3 <b>/</b> 0                          | 175.                                                                                                                                                                                                             | YES LICHEL PACIFIC<br>NO                              | PLUS 736<br>MAS CAUSA<br>M O-RIM<br>FOUND.<br>FRUO VAI                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | YES CONAIR<br>NO 13003                            | 70 F 81,                                                                                                                                                                                                               | DAOP CO.                                                                                                                                                         | JOHEL P.                                      | E AMALT                                                                                                                                                                                                                                                                                                                                                    |
| 2 5 0<br>2 2 2                                                    | 76. 60/0                              | . 5                                                                                                                                                                                                              | 76.5                                                  | ATED<br>1FT H<br>BUNA-<br>AKING<br>1NG B                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 100                                               | 5                                                                                                                                                                                                                      | 2                                                                                                                                                                | 20                                            | ENSIV<br>ES COU                                                                                                                                                                                                                                                                                                                                            |
| VEHICLE SITE PRI VENDOR NAME DATE DIF TIME DIF OTH VENDOR PART NO | £ 7.8                                 | NG OF NUT                                                                                                                                                                                                        | £18                                                   | AGE INDIC<br>. MULL BY<br>COMED THE<br>LURFACE FL<br>SEALS DUR<br>FRICHLOR                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | y 93                                              | LY LOW. R                                                                                                                                                                                                              | ED 87 60/                                                                                                                                                        | FACTORY VES LICHEL PACIFIC 005000             | LING. ELT<br>BIVE CROS<br>B TIGHTEN                                                                                                                                                                                                                                                                                                                        |
| VEHICLE<br>DATE DIF                                               | 1630                                  | OVERTORBUS                                                                                                                                                                                                       | 1950                                                  | DBACK WOLT<br>ALLOMBLE<br>FESTS BH<br>RBUTE TO B                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 640616                                            | S ABNORMAL<br>OS GPM HI                                                                                                                                                                                                | M INITIAT                                                                                                                                                        | 1106                                          | HOSS COUP<br>PAAT EXCES<br>OR THAT NA                                                                                                                                                                                                                                                                                                                      |
| DIF DATA SOURCE<br>PART NUMBER                                    | FAR<br>87-88007-888                   | ND SHOULDER DUE TO C                                                                                                                                                                                             | FAR<br>27-83311-809                                   | A ASSEMBLY MULL FEED A ACTIVE 18 MAXIMUM COL-MOZILE SEAL. LAN CSS AND COULD CONTR ESS AND COULD CONTR FEALS WITH REM-COMP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | UTP-PET<br>87-04206-1                             | EADY STATE FLOW WAS<br>SPECIFICATION OF S.                                                                                                                                                                             | LIMITS. ALSO, ACTIC                                                                                                                                              | FAR<br>27-85314-821                           | MAD EKCESSIVE YAN C<br>KREFOME CONCLUDED ?                                                                                                                                                                                                                                                                                                                 |
| TESTARPORT NUMBR<br>FAILED COMPONENT NAME                         | LV-88-10-266F<br>TUSE ASSEMBLY, 8-NUT | FAILURE MODE-STRUCTURAL FAILURE, COUPLING MUT RUFTURED AROUND SMOULDER DUE TO OVERTORBUING OF MUT.<br>CORRECTIVE ACTION-60/C PERSONNEL MERE CAUTIONED TO LIE PROPER TORBUE PROCEDURES AND OBSERVE TORBUE LIMITS. | LV-98-04-4864-F<br>VERNIER ACTUATOR ASSEMBLY, 12-41M6 | FAILURE MODE-FAILED DURING OPERATION. VERNIER E TAM ACTUATOR ASSEMBLY MULL FTEDBACK VOLTAGE INDICATED PLUS 750 NV W HEFEAS PLUS OR MINUS 350 NV INACTIVE AND PLUS OR MINUS 400 NV ACTIVE IS MAXIMM ALCOMBLE. MULL SHIFT MAS CAUSED BY LEAKAGE PAST A DEFECTIVE CHRING OF AN OLD-COPFIGURATION CONTROL-NOZZLE SEAL. LAB TESTS SHOKED THE BUNA-N O-RING MAY HAVE SEEN EXPOSED TO TRICH, ORCETHYLENE WHICH INCREASES HARDNESS AND COULD CONTRIBUTE TO SURFACE PLAKING FOUND, CORRECTIVE ACTION-REPLACE OLD-CONFIGURATION CONTROL NOZZEL SEALS WITH MEN-CONFIGURATION SEALS DURING SERVO VALVE OV ERRAUL AT DEPOT. ALSO ACTION WAS INITIATED TO ASSURE NO BUNA-N O-RING, ANE NOT EXPOSED TO TRICHLOROETHYLENE DURING S | 2743626<br>VERNIER FLOM LIMITER VALVE             | FAILUME HODE-OUT OF TOLERANCE. BURING P.E.T. TESTING, THE STEADY STATE FLOW WAS ASMORMALLY LOW. REFER TO F SLAT, TE<br>ST SPECIMEN S/M 201-1055. READINGS WERE .000 TO .188 GPH VS. SPECIFICATION OF 1.05 GPM MINIMUM. | CORRECTIVE ACTION-ECP 7698 SUBMITTED TO RELAK SPECIFICATION LIMITS. ALSO, ACTION INITIATED ST 6D/C TO DROP CONVAIR<br>S A SOURCE OF 27-04208-1. REFER TO FRRSTS. | A-A9-D4-se69-F<br>BUSTAINER ACTUATOR ABSEMBLY | FAILUNE MODE-OUT OF TOLERANCE. THE ACTUATOR ABBY REPORTEDLY HAD EXCESSIVE YAM CROSS COUPLING. ELTENSIVE ANALYSIS AN PUNCTIONAL TESTIME COULD MOT COMPIRM THE FAILURE. IT WAS THEREFORE CONCLUDED THAT EXCESSIVE CROSS COUPLING EXPERIE MED MUST HAVE RESULTED FROM A UNISUE TOLERANCE BUILDUP OR PROM A LOOSE CONNECTOR THAT WAS TIGHTENED WHEN THE SERVOC |
| BYSTEN<br>BUG-STSTEN                                              | mtdraulic-a/b<br>Bubtaineq/Vernier    | FAILURE MODE-STRUCTURAL CORRECTIVE ACTION-6D/C P                                                                                                                                                                 | HTDRAULIC-A/B<br>Bustainer/Vernier                    | FAILURE MODE-FAILED DURI<br>MEPEAS PLUS OR MIMUS 35G<br>LENKAGE PAST A DEFECTIVE<br>MAVE SEEN EXPOSED TO TRIC<br>CORRECTIVE ACTION-REPLACE<br>ERRAUL AT DEPOT. ALSO ACT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | HYDRALLIC-A/B 27436E<br>SUSTAINER/VERNIER VERNIER | FAILURE HODE-OUT OF TOLE<br>ST SPECIMEN S/M EG1-1035.                                                                                                                                                                  | CORRECTIVE ACTION-ECP 78:<br>AB A SOURCE OF 27-04208-1.                                                                                                          | HYDRAU. IC-A/B<br>Bustainer/Vermier           | FAILURE MODE-OUT OF TOLES D FUNCTIONAL TESTING COULT MCED MUST HAVE RESULTED FI TLIMDER WAS ACPLACED.                                                                                                                                                                                                                                                      |

CORRECTIVE ACTION-RECOMMENDED BERVOOTLINGER ABBENGIES NOT BE REJECTED AND REMOVED FROM HISSILE FLIGHT-CONTROL SYST

SCHERAL DYNAMICS CONVAIR BIVISION

|   |                                                                                                                             | DIFFICULTIES REVIEW-                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | DIFFICUATIES REVIEW-HYDRAULIC STREEM-AIRBORNE                                                                            | *                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                          | r   |
|---|-----------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|-----|
|   | 3731EN<br>308-3737EN                                                                                                        | TESTARPOAT HUMBER<br>FAILED COMPORNT HANG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | DIF DATA BOURCE<br>PART NUMBER                                                                                           | WENICLE<br>DATE DIF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | WENJELE SITE PRI<br>DATE DIF TIME DIF OTH      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | VENDOR NAME                                              |     |
|   | HTDRAULIC-A/B<br>BUSTAINER/YERNIER                                                                                          | M2-88-04-4880-1<br>SERVO VALVE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | FAR<br>87-04808-1                                                                                                        | 40013                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | PACTORY                                        | T O                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | TES CADILLAC GAGE<br>NO FCE6-387A                        | •   |
|   | FAILURE MODE-OUT OF TOLERANCE & HIN. ALLOMABLE 'INIT OF 4.8 & CH AT EOCPS VS MAN. ALLOMABLE FOR RESOLUTION OF PROBLEN.      | FAILUME MODE-OUT OF TOLERANCE. THE VERHIER BERVO VALVE CAUBED LOW AMPLITUDE RATIO COMDITION BEING 4.5 CM AT 20CP5 V<br>1 him. Alcomble Thait of 4.6 cm at 20 CP3. Phase LAG MAS 1.3 CM AT 3 CP5 VS MAN ALLOMBLE OF 0.0 CM. IT MAS ALBO 4.<br>1 cm at 20CP5 VS MAN. ALLOMBLE OF 3.0 EM.RPA CORRECTIVE ACTION-ND CORRECTIVE ACTION TAREM. NO TEST AMALTSIS AVAILAB                                                                                                                                                                                    | AUSED LOM AMPLITUDE RA<br>11.3 CM AT 3 CP8 VS MA<br>ACTION-ND CORRECTIVE A                                               | TIO COMBI<br>R ALLOMBI<br>CTION TAKE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 104 BEING<br>E OF 0.8<br>N. NO TES             | 4 2 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | CM AT EOCPS W<br>T MAS ALSO 4.<br>LTSES AVAILAD          |     |
|   | CORRECTIVE ACTION-NO C                                                                                                      | ON-NO CORRECTIVE ACTION TARBH. NO TEST AI                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | NO TEST ANALYSIS AVAILABLE FOR RESOLITION OF PROSLEM.                                                                    | ESOL 17108                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | OF PROBLE                                      | į                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                          |     |
|   | HYDRAULIC-A/B<br>BUSTAINER/VERNIER                                                                                          | SLV-99-04-4874-F<br>8£9VQ VALVE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | FAR<br>E7-04208-1                                                                                                        | 61.0013                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | FACTORY                                        | 20                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | VES CADILLAC GAGE                                        | •   |
|   | FAILURE MODE-OUT OF TO<br>EMENTS WITH INPUT C. TY<br>OF CONSIDERED A FAIL<br>CTION TO CONTROL SIGNAL<br>OF THE SIGNALS.     | FAILURE MODE-OUT OF TOLERANCE. THE BUSIAINER BERVOVALVE COULD HOT BE ADJUSTED TO MEET EOP 303.0 MALL CURRENT REGULR HENTS WITH TAPUT C. TROL 316MALS FROM TOC AND ALG BERVOMPLIFICERS AT THE SAME MALL BETTIMG. THIS CONDITION SHOULD M. TO CONSIDEREE A FAILURE OF THE SERVOVALVE MALL RESALTS TO CONTROL SIGNALS FROM TOC AND ALCO CONTROL SIGNALS FROM TOC AND ALCO CONTROL SIGNALS FROM TOC AND ALCO CONTROL SIGNALS FROM TOC AND ALCO CONTROL SIGNALS.                                                                                         | COULD HOT BE ADJUSTED INCLINES AND THE BANK . DISPANITY IS CAUSED INTEREM                                                | TO MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL MEET ECHINAL ME | P 505.0 M<br>MG. THIB<br>ENCE IN B             | 7 TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO SO TO S | URRENT REGULR TION SHOULD IN TALVE MALL REA RACTERISTICS |     |
|   | CORECTIVE ACTION-REV.                                                                                                       | ON-REV.H. TO ECP 305.8 REMOYED THE TOC MALL REQUIREMENT. THIS WILL HOT ASWENDELY AFFECT ACTUATOR ASS<br>E simce most missiles may als type beavonmelifiers.                                                                                                                                                                                                                                                                                                                                                                                         | AL REGUIRDICHT, THIS N<br>DAMPLIFICAS.                                                                                   | RLL NOF AG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | VERBELY A                                      | , mec                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | ACTUATOR ASS                                             |     |
|   | HTDRAULIC-A/B<br>BUSTAINER/VERNIER                                                                                          | 3645-00-06-34<br>3665-00-06-34                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | FAR<br>27-04208-1                                                                                                        | 819099                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | PAC 'SAV                                       | ž č                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | VEB CADILLAC GAGE<br>NO FCE6-387A                        | *** |
|   | FAILURE MODE-OUT OF TO<br>VB MIN. ALLOMBLE OF 4.<br>AT ID CPS VB MAN. ALL<br>LES MET EOP KEBUNEMEN<br>THIS CAUSED IMCREASED | FAILURE MODE-OUT OF TOLERANCE. THE VERNIER BERNO VALVE CAUBED LOW AMPLITUDE RATIO CLAUDITION BEING 4.8 CM 17 EO CPS. VS MIN, ALLOMBLE OF 4.6 CM AT EO CPS. PHASE LAG WAS 1.8 CM AT 8 CPS VS MAR. ALLOMBLE OF 0.0 CM, IT MAS A.3O 3.8 CM AT 10 CPS VS MAR. ALLOMBLE OF E.E. CM, IT MAS A.SO 4.6 CM AT 80 CPS VS, MAR. ALLOMBLE OF 3.6 CM, TEST AMALYSIS VAL LES MET CPS REQUIREMENTS EXCEPT FOR FREGUENCY RESPONSE MHIGH MAS CAUSED BY ANNATURE IN THE SERVO VALVE TORBUE MOTOR. THIS CAUSED INCREASED PRICTION DECREASING TORBUE MOTOR PERFORMANCE. | AUSED LOM AMPLITUDE BL<br>CH AT 8 CP8 V8 MAX. AL<br>SIEM AT 80 CP8 V9. MAX. AL<br>SIEM MAS CAUSED BY ANN<br>MEMPORMANCE. | TIO COMPILE OF LICOMBILE OF LIC | 10s BC186<br>0.0 CH.<br>7 3.0 CH.<br>E BCRVO V | 4 1 1 N                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | CM AT ED CPS 18 A.30 3.E CM AMALYSIS VAL. TORBUE MOTOR.  |     |
| 1 | CORRECTIVE ACTION-THE                                                                                                       | CORRECTIVE ACTION-THE YENDOR WAS ADVISED TO IMPROVE DIMENSIONAL INSPECTION AND PLOOF INSPECTION DURING ASSY OF TORS<br>RE HOTOR ASSYS. 100 PERCENT INSPECTION WAS INITIATED BY THE VENDOR.                                                                                                                                                                                                                                                                                                                                                          | INSIONAL INSPECTION AND THE WENDOR.                                                                                      | PL00# 1#                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | PECTION D                                      | ¥                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | . 4887 OF TORE                                           |     |
|   | MYDRAULIC-A/B<br>SUSTAINES/VERNIER                                                                                          | PEASON FLOW LIMITER VALVE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | UTP-PET<br>87-04204-1                                                                                                    | 010070                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 3/ <b>9</b>                                    | 20                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | YES STEAKE<br>NO 18000                                   |     |

FAILURE MODE-OUT OF TOLEANCE, DURING P.E.T. TEBT, PROOF CYCLE AT "BO DGF SPECIMEN FLOM RATE (1.018 VB. SPECIFICATE ON OF 1.05 GPN HIN.) AND RESPONSE TIME (8.84 VB. SPECIFICATION OF 8.19 SECONDS MAXIMAM).

GENERAL DYNAHICS CONVAIR DIVISION

11 100

| L   |                                                                                                                                                                                                                         | DIFFICULTIES REVIEW-HYDRAULIC SYSTEM-AIRBORNE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | AULIC SYSTEM-AIRBORN                                                                                                   |                                                        |                                                 |         |                                                                                          |        |
|-----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|-------------------------------------------------|---------|------------------------------------------------------------------------------------------|--------|
| l   | AVATEM<br>BUG-AVATEM                                                                                                                                                                                                    | TEST/AEPORT NUMBER<br>FAILED COMPONENT NAME                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | DIF DATA SOURCE<br>PART NUMBER                                                                                         | VEHICLE SITE PAI                                       | 817E<br>71ME DIF                                |         | VENDOR MANE<br>VENDOR PART NO                                                            |        |
|     | CORRECTIVE ACTION-ECP 785                                                                                                                                                                                               | CORRECTIVE ACTION-ECP 7838 SUBHITTED TO RELAX COMPONENT SPECIFICATION LIMITS.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | CIPICATION LIMITS.                                                                                                     |                                                        |                                                 |         |                                                                                          |        |
| 1 . | HTDRAULIC-A/B<br>BUSTAINER/VERNIER                                                                                                                                                                                      | LV-88-04-4881-F<br>ACTUATOR ASSEMBLY, O-RIM6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | FAR<br>27-05311-908                                                                                                    | 1950<br>940807                                         | FACTORY                                         | £ 0     | YES LIGHEL PACIFIC<br>NO                                                                 | 77.0   |
|     | FAILURE MODE-LEAR, EXTERNAL, THE<br>SEAL OF VERNIER & YAM ACTUATOR AT<br>LISO GREAVED IN THE LEARAGE FUEL,<br>LICATED, THIS REPORTED LEARAGE MA<br>O-RING AND THE BOSE PROVIDING A<br>RTICLES ARE WITHIN SPECIFICATION. | FAILURE MODE-LEAR, EXTERMAL, THE VERNIERSERVO-CYLINDER REPORTEDLY FAILED DUE TO MYDRAULIC FLUID SEEPING PAST SMAFT SEAL OF VERNIER E TAM ACTUATOR AT ARATE OF S DROPS PER HOUR AT 40 PSIG H'DRAULIC PRESSURE, METALLIC PARTICLES MEME A LISO GESEAVED IN THE LEARAGE FUEL, EXTENSIVE TEST AMALYSIS FAILED TO COMP'RH THIS REPORT PAILURE AND COULD NOT SE DUP LICATED. THIS REPORTED LEARAGE MAY HAVE OCCUMHED IF FELT FISERS FROM THE DAMAGED FELT MIPER WERE CAUGHT SETNERN THE OPHING AND THE SOME PROVIDING A LEARAGE PATH, NO METAL PARTICLES LARGER THAN SO MICROMS WERE FOUND. THE SO MICROM PA RTICLES ARE WITHIN SPECIFICATION. | RTEDLY FAILED DUE TO<br>AT 40 PSIG H'DRAULIG<br>LILED TO COM?? BN THII<br>LERS FROM THE DAMAGES<br>CLES LARGER THAN 10 | MORALI<br>PEESSUE<br>REPORT P<br>FELT WIP<br>MICROMS W | C FLUID .<br>METALL<br>AILURE A<br>ER MERE FOUN |         | WE PAST SMAFT TICLES MERE A ALD NOT BE DUP F BETHEEN THE E 50 MICRON PA                  |        |
|     | CORRECTIVE ACTION-NOME. I<br>B. USE OF TEFLOM RINGS IN.                                                                                                                                                                 | CORRECTIVE ACTION-NOME, BUCH LEAKAGE IN FAILUREB ENCOMMERED TO DATE ANY NOT BUFFICIENT TO COMPROMISE MISSIONSUCCES<br>B. USE OF TEFLOM RINGS IN PLACE OF FILT LUBRICATORS HAS BEENPROPOSED AS A CLASS 1 IMPROVENENT CHANGE TO THE AIRFORCE<br>- AIRFORCE HAS DISAPPROVED THE PROPOSAL AT THIS TIME.                                                                                                                                                                                                                                                                                                                                      | D TO DATE ANY NOT SU                                                                                                   | FFICIENT<br>1 IMPROVE                                  | TO COMPRINENT CHA                               | ON I BE | HISSICHSUCCES<br>O THE AIRFORCE                                                          |        |
|     | HTDRAULIC-A/B<br>Sustainer/Vernier                                                                                                                                                                                      | 2723543<br>BUSTAID ER BERNO VALVE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | UTP-PET<br>87-04208-1                                                                                                  | 909079                                                 | <b>5/9</b>                                      | ž Q     | VES CADILLAC GAGE<br>NO FC26-396A                                                        | *      |
|     | FAILURE MODE-OUT OF TOLES<br>T B MILLIAMPS DIFFERENTIA<br>16 GPM.) TEST SPECIMEN BAT<br>14 TEROUGH 640917.                                                                                                              | FAILURE MODE-OUT OF TOLERANCE. DURING PET FLUID-LOM-TEMPERATURE TEST, THE SPECIMEN FAILED TO PASS SUFFICIENT FLOW A<br>B MILLIAMPS DIFFERENTIAL CURRENTS. THE FLOMS WERE PLUS 1.35 ANY MIMUS 1.67 GPM. IREQUIREMENT 2.15 PLUS OR MIMUS .2<br>6 GPM.) TEST SPECIMEN 8/M 403-0966 (LOT 23) REFER TO FRR 372. B.MILAR FAILURES OCCURRED ON GADSES, 640904. AND 8409<br>4 Terouch 640917.                                                                                                                                                                                                                                                    | ITURE TEST, THE BREC!<br>15 AND MINUS 1.67 GP!<br>72. B.MILAR FAILURES                                                 | HEN FAILE<br>1. TREAUTH<br>OCCURAED                    | D TO PAS<br>EMENT E.<br>ON 6406E                | 2 3 3   | FICIENT FLOW A<br>US OR MINUS .E<br>DBO4. AND 8409                                       |        |
|     | CORRECTIVE ACTION-BURVEN                                                                                                                                                                                                | CORRECTIVE ACTION-SURVE: INSTRUCTIONS 150-64 1850ED TO REJECT ALL UNITS OF LOT MUNDER 23.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | וכן ארד תאונם פל נבל                                                                                                   | MUNDER ET                                              | •                                               |         |                                                                                          |        |
|     | HTDRAULIC-A/B<br>Bustaineq/Vernier                                                                                                                                                                                      | ETASSE4<br>VERNIER BERVO VALVE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | UIP-PET<br>27-04208-1                                                                                                  | 500070                                                 | 3/ <b>09</b>                                    | 2 Q     | CADILLAC SASE<br>FCES-388A                                                               | 911.00 |
|     | "AILURE MODE-OUT OF TOLE<br>B MILLIAM'S DIFFERENTIAL<br>FER TO FRR 373.                                                                                                                                                 | TAILUME MODE-OUT OF TOLEBANCE. DURING PET LOW FLUID TEMPERATURE TEST THE SPECIMEN PAILED TO PASS SUFFICIENT PLOM AT<br>8 HILLIAMES DIFFERENTIAL CURRENT. THE FLOMS MERE PLUE 3.05 AND 3.00 SPM. TEST SPECIMEN BAN WAS 402-5017. LOT 44. RE<br>ER TO FRR 375.                                                                                                                                                                                                                                                                                                                                                                             | NUME TEST THE SPECI<br>AND 1.30 GPM. TEST                                                                              | MEN FAILEI<br>MECIMEN (                                | 70 PASS                                         | 1-60    | SPECIMEN FAILED TO PASS SUPPICIENT PLOW AT<br>TEST SPECIMEN S/N WAS 408-1917, LOT 44, RE |        |
|     | CORRECTIVE ACTION-SURVEY                                                                                                                                                                                                | HON-BUTVEY FASTRUCTIONS SES-64 ISSUED TO REJECT ALL UNITS FROM LOT 44 AND LOT 45.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | ICT ALL UNITS PROM L                                                                                                   | 01 44 ANG                                              | 101 48.                                         |         | ·                                                                                        | ,      |

CONVAIR DIVIBION

9901 WAT 11

4

|                                                                              | DIFFICUATIES REVIEW-MYDRAULIC SYSTEM-AIRBORNE                                                                                                                                                                                                                                             | IAULIC SYSTEM-AIRBOR                      | ¥                        |              |        |                                                                      |           |
|------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|--------------------------|--------------|--------|----------------------------------------------------------------------|-----------|
| 8787EH<br>818-8737EH                                                         | TESTARPORT NUMBER<br>FAILED COMPOMENT NAME                                                                                                                                                                                                                                                | DIF DATA BOUNCE<br>PART NUMBER            | VEHICLE<br>DATE DIF      | 11 0 17 T    | - X    | VEHICLE BITE PAI VENDOR NAME<br>BATE BIF TIME BIF OTH VEHOOR PART NO |           |
| HTDRAKE IC-A/B<br>BUSTAINES/VERHER                                           | ET-340P UTP-PET VERHIER HYDRAULIC CYLINDER ABBENGL ET-00579-3 T. BEARING                                                                                                                                                                                                                  | UTP-PET                                   | 100079                   | COMVAIR      | 5 6    | YES LICHEL PACIFIC 88705E<br>NO 8792-E                               | 99.1038   |
| PAILURE MODE-OUT OF TO<br>O PAIG BLAS PRESSURE RA<br>ARIMG. REF. FPR MR F-51 | PAILUME MOCE-OUT OF TOLERANCE, DURING POST LIFE TEST THE PRESSURE RESULRED TO MONE THE ACTUATOR PISTON AGAINST A 10<br>O PSIG BIAS PRESSURE RANGED BETWEEN GO AND GA PSIG. MEG. IS 50 PSIG MAK, THIS FAILUME UNS CAUSED BY A GALLED BACK BE<br>ARING. REF. FPR NR F-31353NT 8/N 401-5043. | ESSUNE AEQUAED TO<br>30 PSIS MAX. THIS P  | ALLINE NAT               | C TUATOR     | P19104 | PISTON AGAINST A 10<br>BY A GALLED BACK BE                           |           |
| COKRECTIVE ACTION-NOME<br>ACCEPTABLE REF. FAR FRE                            | ON-NONE-THE THERTTA LOAD UBED POR THE ABONE TEST IS GRENTER THAN ACTUAL LOAD ON VEHICLE. PET LOT 16<br>FAR FR854-2-360.                                                                                                                                                                   | TEST IS CAE.IER THA                       | N ACTUAL 1               | OAD ON V     | EHICLE | PET LOT 16                                                           |           |
| HTDRALLIC-A/B<br>BUSTAINEY/VERNIER                                           | RTASSSA<br>VERNICA PLOM LIMITER VALVE                                                                                                                                                                                                                                                     | UTP-PET<br>R7-04200-1                     | \$0000                   | J/ <b>99</b> | 40 11  | 87£4£4<br>18000                                                      | ***       |
| FAILURE MODE-OUT OF TO<br>08 (SPECIFICATION REGAL<br>RE REVIEW REPORT 357 AM | FAILUME MODE-OUT OF TOLERANCE, DURING P.E.T. TEST-PROOF CYCLE AT LOW TEMPERATURE. THE RESPONSE TIME WAS 2.334 SECON<br>DS (SPECIFICATION REGULHENENT IS 2.0 TO 2.130 SECONDS). TEST WAS ON S/N 406-1645 REPRESENTING LOT 22, REFER TO FAILU<br>RE REVIEW REPORT 337 AND 369.              | LE AT LOW TEMPERATU<br>MAS ON S/N 404-164 | NG- THE ME<br>B REPRESED | SPONE 7      | Ä      | 2.336 SECON<br>FER TO FALL                                           |           |
| CORRECTIVE ACTION-ECP                                                        | OH-ECP 7838 SUBMITTED TO RELAK COMPONENT BPECIFICATION LIMITS.                                                                                                                                                                                                                            | CIFICATION LIMITS.                        |                          |              |        |                                                                      |           |
| HTDRAULIC-A/B<br>BUSTAINEA/VERMIER                                           | 60a/apres-050/a64-368-F-3486                                                                                                                                                                                                                                                              | PLIGHT                                    | E440                     | A5<br>846.08 | 7 G    |                                                                      | 9 4 4 4 6 |
| FAILUSE MOE-ENRATIC O                                                        | RATIC OPERATION, BUSTAINER HYDRAULIC PRESSURE OBCILLATIONS (MAX. PEAR-TO-PEAR AMPL. MAS 140 PSI) NEW IO DUSTAINER CUTOFF. HERE NEAE NO SIGNIFICANT ENGINE MOVEMENTS TO EXPLAIN THIS ANOMALY.                                                                                              | IE OSCILLATIONS (MAX                      | FEAR-TO                  | PEAR AND     | S W S  | 140 P313 MEN                                                         |           |
| STRIEN EFFECT-NOME.                                                          |                                                                                                                                                                                                                                                                                           |                                           |                          |              |        |                                                                      |           |
| VEHICLE EFFECT-NONE.                                                         |                                                                                                                                                                                                                                                                                           |                                           |                          |              |        |                                                                      |           |
| CORECTIVE ACTION-MOME                                                        | CORECTIVE ACTION-NOME. BUBISGUENT INVESTIGATIONS OF THIS ANDMALY HAVE INDICATED NOTHING OF A CRITICAL OR MARSIMAL<br>Fines comprisedte to the observed (MCILLATIONS.                                                                                                                      | HOMALT HAVE INDICATE                      | EB NOTHING               | 0f A CB      | 13164  | OR MAREIMAL                                                          |           |
| ATDRACE IC-A/E<br>BUSTAINER/VERNIER                                          | COA/BAF84-038/P2-402-00-250<br>\CTUAFOR                                                                                                                                                                                                                                                   | FL1641<br>87-08576-8                      | £300<br>€407£6           | ===          | 58     | YES LICHEL PACIFIC<br>NO 8778-100                                    | •         |

FISIEM EFFECI-ERRATIC OPERATION-THE PLIGHT CONTROL STRTEM DID MOT COMPLETELY DAMP THE RISID BOOY OBCILLATIONS BECAU ME OF A LIMII CYCLE RESULTIME FROM A DEAD LONE IN THE VERNIER ACTUATOR ABBENDLIED : 40/OR OTHER BISIEM WON-LINGARITIE D.

FAILUTE MOCE-ERRATIC OPERATION-RIGID BOOT OSCILLATIONS EXCITED BY A YAM BTEERING COMMAN FOLLOWING MECO DECATED TO MALE AMPLITUDE IN 1.5 CYCLES, BUT DID NOT DECAY FURTHER IN THE REMAINING THREE MALE CYCLES FRIOR TO WECO.

CENERAL DYNAMICS

18 JUN 1864

4

ſ

f

|   |                                                                                                               | DIFFICULTIES REVIEW-HTDRAULIC STSTEM-AIRBORME                                                                                                                                                                                                                                                                                                                                                                                                                                     | RAULIC STRTEN-AIRBORP                                                                                                                                                                                                                                                      | •                                        |                                |                                       |                                                           |                                       |
|---|---------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|--------------------------------|---------------------------------------|-----------------------------------------------------------|---------------------------------------|
|   | SYSTEM<br>BUB-SYSTEM                                                                                          | TESTARFORY NUMBER<br>FAILED COMPONENT NAME                                                                                                                                                                                                                                                                                                                                                                                                                                        | DIF DATA BOUNCE<br>PART NUMBER                                                                                                                                                                                                                                             | VEHICLE<br>DATE DIF                      | 11 6 11 F                      | 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | VENDOR NAME<br>VENDOR PART NO                             |                                       |
|   | VEHICLE EFFECT-NONE.                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                            |                                          |                                |                                       |                                                           |                                       |
|   | CORECTIVE ACTION-THE VE                                                                                       | CORECTIVE ACTION-THE VERNIER EMGINE BIAB DURING BUSTAINER AND VERNIER PHABES MAS REDUCED PROM SO TO AS DEGREES TO<br>Warove comprol.                                                                                                                                                                                                                                                                                                                                              | AND VERNIER PHABES !                                                                                                                                                                                                                                                       | M. REDUCED                               | 30 50                          | 9                                     | S DEGREES TO                                              |                                       |
|   | HTG4AULIC-A/B<br>Bustainer/Veqnier                                                                            | ETABGET<br>VERHIER FLOM LIMITER VALVE                                                                                                                                                                                                                                                                                                                                                                                                                                             | UTP-PET<br>27-04208-1                                                                                                                                                                                                                                                      | 9 724079 G                               | ) <b>3</b>                     | 45.0                                  | 87ERER<br>13000                                           | 9911                                  |
|   | FAILURE MODE-OUT OF TOLE<br>PWISPECIFICATION REQUIREM<br>M 038-0129.                                          | FAILURE MODE-OUT OF TOLERANCE. DURING P.E.T. TEST, THE STEADY STATE FLOW MAS OUT OF TOLERANCE FROM S.205 TO S.285 G<br>Phispecification requirement 1.20). Similar Pailure occurred Gadgos, refer to far 857,859, and 369. Test specimen 8/<br>M dug-0129.                                                                                                                                                                                                                        | ADY STATE FLOW MAS OF                                                                                                                                                                                                                                                      | JT OF TOLER                              | ANCE PROP<br>AND 369.          | # 3.£                                 | 1.205 TO 1.235 G<br>TEST SPECIMEN S/                      |                                       |
|   | CORRECTIVE ACTION-ECP 76                                                                                      | CORRECTIVE ACTION-ECP 7600 SUBHITTED TO RELAX CONFONENT SPECIFICATION LIMITO.                                                                                                                                                                                                                                                                                                                                                                                                     | ECIFICATION LIMITS.                                                                                                                                                                                                                                                        |                                          |                                |                                       |                                                           |                                       |
|   | HYDRAULIC-A/B<br>BUSTAINER/VERNIER                                                                            | 914-99-10-257-C                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | FAR<br>27-06562-3                                                                                                                                                                                                                                                          | 131070                                   | PACTORY                        | 20                                    | ROCHESTER 646E<br>6903-617-1                              | 9444                                  |
|   | FAILURE MOE-LEAK-PRESSU                                                                                       | FAILURE MODE-LEAK-PRESSURE GAGE WAS FOUND TO BE LEAKING INTERNALLY DURING PRESSURE CHECK.                                                                                                                                                                                                                                                                                                                                                                                         | ITERNALLY DURING PRESS                                                                                                                                                                                                                                                     | HAE CHECK.                               |                                |                                       |                                                           |                                       |
|   | CORRECTIVE ACTION-VENDOR                                                                                      | CORRECTIVE ACTION-VENDOR CORRECTIVE ACTION MAS ACCOMPLISHED TO PREVENT LEARAGE CAUSED BY SUBSTANDARD BRAZEMENTS.                                                                                                                                                                                                                                                                                                                                                                  | ED TO PREVENT LEARAGE                                                                                                                                                                                                                                                      | CAUSED BY                                | SUBSTAND                       | ARD B                                 | RAZEMENTS.                                                |                                       |
|   | MYDRAULIC-A/8<br>BUSTAINER/VERNIER                                                                            | LV-89-04-4856-F<br>Servoyalve                                                                                                                                                                                                                                                                                                                                                                                                                                                     | FAR<br>27-64208-1                                                                                                                                                                                                                                                          | 40720                                    | FACTORY                        | 20                                    | CADILLAC 646E<br>FC26-598A                                | 100                                   |
|   | FAILURE MODE-OUT OF 10.E<br>AR ALLOMBLE OF 0.50MM JU<br>PE SERO AMMLIFIER, CAUSE<br>RS RESULTING IN NON ADJUS | FAILURE MODE-OUT OF TOLERANCE-BUSTAINER RERVOYALVE REPORTEDLY CAUSED EXCESSIVE MALL CURRENT CONDITION OF JOSSMA VS M<br>X ALLOWABLE OF 0.50MA JURING TEST OF ASSEMBLED SEROCYLINDER, EOF 305.5 WAS USED WITH CONTROL SIGNALS FROM AN IOC TY<br>EE SECAMPLETER, CAUSE WAS AN ELECTROMAGNETIC COUPLING INCOMPATIBILITY BETWEEN USE OF TWO DIFFERENT SERVO AMPLIFIES<br>IS RESULTING IN NON ADJUSTIBILITY OF MALL WITH INPUT SIGNALS FROM BOTH BERVO AMPLIFIERS AT THE SAME SETTING. | LVE REPORTEDLY CAUSED EXCESSIVE MALL CURRENT CONDITION OF GASHA VS H SERCYLINGER, EOF 309-9 WAS USED WITH CONTROL SIGNALS FROM AN IOC TY COAPLING INCOMPATIBLISTY BETWEEN USE OF TWO DIFFERENT SERVO AMPLIFIES HAD SIGNALS FROM BOTH RERVO AMPLIFIERS AT THE SAME SETTING. | NULL CURRE<br>NITH CONT<br>NUSE OF TH    | NT COLDS                       | 7106<br>ALS 7<br>Ent 3                | OF.OBSMA VS M<br>ROM AN IOC TI<br>MERVO AMPLIFIE<br>TIME. |                                       |
|   | CORRECTIVE ACTION-DELETE THE                                                                                  | COMBECTIVE ACTION-DELETE THE NULL ABJUSTMENT TEST WITH INPUT PROM THE JOE TYPE SERVO ANPLIFIER PROM EGP 305.0 PER T<br>A 12 AND REV H TO EGP 305.2.                                                                                                                                                                                                                                                                                                                               | NUT PROM THE LOC TYPE                                                                                                                                                                                                                                                      | BERVO AMPL                               | IFIER FR                       | 8                                     | 2P 308.0 PER 1                                            |                                       |
|   | HTDRAULIC-A/B<br>Bustainer/Vermier                                                                            | LV-SD-04-4459-F<br>ACTUATOR ABSEMBLY, O-RING                                                                                                                                                                                                                                                                                                                                                                                                                                      | FAR<br>E7-8551E-805                                                                                                                                                                                                                                                        | 3530 F                                   | FACTORY                        | £ 0                                   | YES LIGHEL PACIFIC                                        | · · · · · · · · · · · · · · · · · · · |
| 1 | FAILURE MODE-CONTANTMATTIL PAST ACTUATOR SHAFT BE OR 24 HOURS AT 100 PSIG.                                    | FAILURE MOJE-CONTANINATION. DURING CHECKOUT PER PROCEDURE ET-BRIZE IME VERNIER ACTUATOR ASSEMBLY LEAKED HYDRALLIC O<br>IL PAST ACTUATOR SHAFT BEALS. ANALYSIS CONFIRMED THE LEAK. THE RATE WAS E.S CC FOR RD HOURS AT 40 PSIS AND 14.1 CC F<br>OR R4 HOURS AT 100 PSIS. THE INDICATED CAUSE WAS PELT LUBRICATOR BHREADING AND G-RING DANAGE IN RH PISTON SEAL. ALSO<br>O-RING MOLDING DEFECTS WERE VISIELE UNDER MICROSCOPIC EXAMINATION.                                         | ET-BBIZE THE VERNIER<br>THE RATE WAS E.S. CC<br>ICATOR SHREADING AND<br>TIMATION.                                                                                                                                                                                          | ACTUATOR A<br>FOR ED HOUR<br>D-RING DAMA | 33EMBLT<br>3 AT 40<br>66 IN RH |                                       | ED HYDRAULIC O<br>AND 14.1 CC F<br>TON BEAL. ALBO         |                                       |

9961 NOT 61

| DIVIBION |
|----------|
| CONVAIR  |
|          |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | DIFFICULTES ALVIEN-ATURACEL STREET ATURACEME                                                                                                                                                                                              |                                                                    |                                             |                                         |                                                                                                                         | _ |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|---------------------------------------------|-----------------------------------------|-------------------------------------------------------------------------------------------------------------------------|---|
| BUB-BYSTEN                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | TESTARFOR! NUMBER<br>FAILED COMPONENT NAME                                                                                                                                                                                                                                                                                                                                                                                                                                                             | DIF DATA BOURCE<br>PART NUMBER                                                                                                                                                                                                            | VEHICLE<br>DATE DIF                                                | 117E DIF                                    | 0 E                                     | VENICLE BITE PRI VENDOR HANE DATE NO                                                                                    |   |
| CCARECTIVE ACTION-MEN                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | TION-NENO 862-10-13 OF JULY 28: 1984 EBIABLIANED NEW DESIGN CRITERIA APPROXINATELY DOUBLING LEAR RATE                                                                                                                                                                                                                                                                                                                                                                                                  | LANED HEW DESIGN CRITI                                                                                                                                                                                                                    | AIA APPON                                                          | INATELY                                     | 7                                       | .ING LEAK RATE                                                                                                          |   |
| HTDRAULIC-A/B<br>BUSTAINER/VERNIER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | A-88-04-4834-F<br>8:RVO VALVE-SUSTAINER                                                                                                                                                                                                                                                                                                                                                                                                                                                                | FAN<br>E7-04800-1                                                                                                                                                                                                                         | 440717                                                             | FACTORY                                     | ÷ 8                                     | YES CADILLAC SAGE<br>NO FCES-396A                                                                                       | i |
| FALLUSE MODE-OUT OF 17<br>M. EOF 303-8 MAS USED<br>MITH IMPUT SIGNALS FR<br>RWO- AMPLIFIERS AT IM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | FAILURE MOSE-OUT OF TOLERANCE-SUSTAINER SERMOVALVE CAUSED EXCESSIVE MALL CURRENT OF 1584A VS MAX ALLOMABLE OF 1050<br>HA. EOF 303.8 HAS USED. TEST AMALTSIS DEMONSTRATED THAT SERVOCTLINDER HULL COMED BE ABJUSTED WITHIN EOF REQUIREMENTS<br>WITH INVOT SIGNALS FROM EITHER THE A1G OR ICC-TIPE AMPLIFIER, MULL COULD BE ADJUSTED WITH INPUT BIGMALS FROM BOTH B<br>ERVO- AMPLIFIERS AT THE SAME SETTING. FAILURE CLUSE WAS AN ERAOR IN DISPOSITION OF MON-CONFORMING BUPPLIES.                       | D EKESSIVE WALL CURRE<br>ERVOCTLINGER WALL COM<br>FIER, MALL COALD BE M<br>M ERACE IN DISPOSITION                                                                                                                                         | INT OF .144<br>LD BE ADJUST<br>LD BE ADJUST<br>LE HON-CO           | A VS MAX<br>TED WITH<br>H INPUT             | TO THE CO                               | MABLE OF .050<br>DP REGUINEMENTS<br>NLS FROM BOTH B<br>NLIES.                                                           |   |
| CORECTIVE ACTION-SUP<br>ICH MOULD HAVE E.IMINA<br>E.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | CORRECTIVE ACTION-SUPERVISION AND PERSONN', WERE ADMONISHED TO CARFULLY POLLOM 60/C RCS 140-70-1, SUPPLINENT 3, WH<br>ch mould have eliminated another analys 4 of this unit before 11 had been repaired, inspected and returned to servi<br>E.                                                                                                                                                                                                                                                        | MED TO CARFULLY FOLLY<br>EFONE 11 HAD BEEN REPL                                                                                                                                                                                           | N 60/C RCS                                                         | 140-70-                                     | # G                                     | APLINENT S, WHITHER TO SERVE                                                                                            |   |
| HYDRALLIC-A/B SUSTAINER/VERNIER FAILURE MOE-GOT OF TO MAX. ALLOMBLE OF TO MAX. ALLOMBLE OF TO MAX. ALLOMBLE OF TO MAX. ALLOMBLE OF TO MAX. ALLOMBLE OF TO MAX. ALLOMBLE OF TO MAX. ALLOMBLE OF TO MAX. ALLOMBLE OF TO MAX. ALLOMBLE OF TO MAX. ALLOMBLE OF TO MAX. ALLOMBLE OF TO MAX. ALLOMBLE OF TO MAX. ALLOMBLE OF TO MAX. ALLOMBLE OF TO MAX. ALLOMBLE OF TO MAX. ALLOMBLE OF TO MAX. ALLOMBLE OF TO MAX. ALLOMBLE OF TO MAX. ALLOMBLE OF TO MAX. ALLOMBLE OF TO MAX. ALLOMBLE OF TO MAX. ALLOMBLE OF TO MAX. ALLOMBLE OF TO MAX. ALLOMBLE OF TO MAX. ALLOMBLE OF TO MAX. ALLOMBLE OF TO MAX. ALLOMBLE OF TO MAX. ALLOMBLE OF TO MAX. ALLOMBLE OF TO MAX. ALLOMBLE OF TO MAX. ALLOMBLE OF TO MAX. ALLOMBLE OF TO MAX. ALLOMBLE OF TO MAX. ALLOMBLE OF TO MAX. ALLOMBLE OF TO MAX. ALLOMBLE OF TO MAX. ALLOMBLE OF TO MAX. ALLOMBLE OF TO MAX. ALLOMBLE OF TO MAX. ALLOMBLE OF TO MAX. ALLOMBLE OF TO MAX. ALLOMBLE OF TO MAX. ALLOMBLE OF TO MAX. ALLOMBLE OF TO MAX. ALLOMBLE OF TO MAX. ALLOMBLE OF TO MAX. ALLOMBLE OF TO MAX. ALLOMBLE OF TO MAX. ALLOMBLE OF TO MAX. ALLOMBLE OF TO MAX. ALLOMBLE OF TO MAX. ALLOMBLE OF TO MAX. ALLOMBLE OF TO MAX. ALLOMBLE OF TO MAX. ALLOMBLE OF TO MAX. ALLOMBLE OF TO MAX. ALLOMBLE OF TO MAX. ALLOMBLE OF TO MAX. ALLOMBLE OF TO MAX. ALLOMBLE OF TO MAX. ALLOMBLE OF TO MAX. ALLOMBLE OF TO MAX. ALLOMBLE OF TO MAX. ALLOMBLE OF TO MAX. ALLOMBLE OF TO MAX. ALLOMBLE OF TO MAX. ALLOMBLE OF TO MAX. ALLOMBLE OF TO MAX. ALLOMBLE OF TO MAX. ALLOMBLE OF TO MAX. ALLOMBLE OF TO MAX. ALLOMBLE OF TO MAX. ALLOMBLE OF TO MAX. ALLOMBLE OF TO MAX. ALLOMBLE OF TO MAX. ALLOMBLE OF TO MAX. ALLOMBLE OF TO MAX. ALLOMBLE OF TO MAX. ALLOMBLE OF TO MAX. ALLOMBLE OF TO MAX. ALLOMBLE OF TO MAX. ALLOMBLE OF TO MAX. ALLOMBLE OF TO MAX. ALLOMBLE OF TO MAX. ALLOMBLE OF TO MAX. ALLOMBLE OF TO MAX. ALLOMBLE OF TO MAX. ALLOMBLE OF TO MAX. ALLOMBLE OF TO MAX. ALLOMBLE OF TO MAX. ALLOMBLE OF TO MAX. ALLOMBLE OF TO MAX. ALLOMBLE OF TO MAX. ALLOMBLE OF TO MAX. ALLOMBLE OF TO MAX. ALLOMBLE OF TO MAX. ALLOMBLE OF TO MAX. ALLOMBLE OF TO MAX. ALLOMBLE OF TO MAX. ALLOMBL | TORAULIC-A/B  SERVO VALVE-SUSTAINER  SERVO VALVE-SUSTAINER  SERVO VALVE-SUSTAINER  SERVO VALVE-SUSTAINER  SERVO VALVE-SUSTAINER  SERVO VALVE-SUSTAINER  SERVO VALVE-SUSTAINER  SERVO MALE CURRENT CONDITION OF .085NA VS  MAX. ALLOM-SEE OF .050 NA DATING SET OF ASSCHEDE BENDO CYLINGER. SOF SUSTAINE SUSTAINE SET OF ASSCHED SERVO CYLINGER. SECOND MAY THE CONTROL SIGNALS FROM AN 1 OCCURRENT ASSUMENT SERVON AN 1 OCCURRENT SERVON AN 1 OCCURRENT SERVON SOF SERVON SOF SET OF THE SAME SETTING. | FAR<br>E7-04208-1<br>ITDLY CAUSED EXCESSIV<br>CYLINGEN. EGP 303-9 M<br>MPLING INCOMPATIBILITY<br>VIT SIGNALS FROM SOFT                                                                                                                    | 640700<br>F MALL CURR<br>18 USED MIT<br>18 USED MIT<br>PERVONST IF | FACTORY ENT COMO H COMTRC HSC OF TW TERB AT | 2 0 1 1 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | VES CADILLAC GAGE ND FC20-398A TION OF .085NA VS SIGNALS FROM AN I SIGNALS FROM AN I DIFFERENT SERVOAM ME SAME SETTIMG. | į |
| CORRECTIVE ACTION-DELETE THE MALL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | CORRECTIVE ACTION-DELETE THE MULL ADJUSTMENT TEST MITH IMPUT FROM THE LOC-TYPE BERND AMPLIFIER FROM E.O.P. 303.8. P                                                                                                                                                                                                                                                                                                                                                                                    | MENT FROM THE LOC-TYPE                                                                                                                                                                                                                    | DET ON USE 1                                                       | Ciries 4                                    | 5                                       | 6.0.7. \$05.9.                                                                                                          |   |
| MYDRAUL IC-A/B<br>BUSTAINER/YEMIER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | LV-98-04-4641-F<br>VERNIER ACTUATOR ABBENGLY                                                                                                                                                                                                                                                                                                                                                                                                                                                           | FAR<br>27-05311-000                                                                                                                                                                                                                       | 904070                                                             | 5                                           | 5 8                                     | YES LIDMEL PACIFIC NO                                                                                                   | • |
| FAILURE MODE-FAILED D<br>MAE PORTICM OF PROCEDU<br>AEROCYLIMDER ABST MET<br>QUYED IN THE BPECIFIC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | FAILURE MODE-FAILED DURING CPERATICN-VERNIER ACTUATOR AI<br>MAGE PORTICM OF PROCEDURE ET-03510, BOOM 3-D. ERTENDING PI<br>Agrocylinder asst MET 113 FUNCTIONAL REGUIREMENTS MELL MI<br>Quyed in the Apecific Tolerance and Tolerance Buildup ai                                                                                                                                                                                                                                                        | ABBY, REPORTEDLY PAILED BURING PERFORMANCE OF PREQUENCY RESPO<br>FUNCTIONAL TESTING FAILED TO COMPIRM REPORTED FAILURE AS THE<br>WITHIN APPLICABLE SPECS. CAUSE OF REJECTION APPARENTY IS INV<br>ASSOCIATED WITH THE TEST APPARATUS USED. | BURING PER<br>18 TO COMP.<br>CAUSE OF<br>T APPARATUR               | FORMANCE<br>NH REPORTED<br>REJECTION        | 894                                     | PREGUÉNCY RESPO<br>FAILUME AS THE<br>PARENTLY IS INV                                                                    |   |
| CCARECTIVE ACTION-FIE<br>CALIBRAIN W PHABE AND                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | CCARECTIVE ACTION-FIELD FERBONNEL ADVISED L. PROBLEMS OF THIS NATURE TO SHIP THE REJECTED SANSORM TAPE READOUT WITH<br>Calibrally Phase and the Hardmare For Yerffication.                                                                                                                                                                                                                                                                                                                             | THIS NATURE TO SHIP                                                                                                                                                                                                                       | THE REJECTE                                                        | 9                                           | 2                                       | PE READOUT WITH                                                                                                         |   |
| ***************************************                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                           |                                                                    |                                             |                                         |                                                                                                                         | _ |

GENERAL DYNAHICS CONVAIR DIVISION

11 JUN 1966

4

1

| TORALLIC-A/B  BLVA-89-04-4848-F  FAR  BARNO VALVE-BUSTAINER  E7-04208-1  BARNO VALVE-BUSTAINER  E7-04208-1  BARNO VALVE-BUSTAINER  E7-04208-1  BARNO VALVE-BUSTAINER  E7-04208-1  BARNO FEER-396A  NO  | TES CADILLAC GAGE WO FCES-396A INER SERVOCTLIMOER SERVO CYLIMOER ASS OF EOP 303.9. IFIER BUT STILL RE TES LIOMEL PACIFIC GAGES NO |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| DURING ABBY OF SUSTAINED SER ION OF THE SUSTAINED SER IN THE TOLERANCE BAND OF SUSTAINED THE TOLE AND UST THE SUSTAINED SER THE SESTING SER THE SUSTAINED SER THE SUSTAINED SER THE SUSTAINED SER THE SUSTAINED SER THE SUSTAINED SER THE SUSTAINED SER THE SUSTAINED SER THE SUSTAINED SER THE SUSTAINED SER THE SUSTAINED SER THE SUSTAINED SER THE SUSTAINED SER THE SUSTAINED SER THE SUSTAINED SER THE SUSTAINED SER THE SUSTAINED SER THE SUSTAINED SER THE SUSTAINED SER THE SUSTAINED SER THE SUSTAINED SER THE SUSTAINED SER THE SUSTAINED SER THE SUSTAINED SER THE SUSTAINED SER THE SUSTAINED SER THE SUSTAINED SER THE SUSTAINED SER THE SUSTAINED SER THE SUSTAINED SER THE SUSTAINED SER THE SUSTAINED SER THE SUSTAINED SER THE SUSTAINED SER THE SUSTAINED SER THE SUSTAINED SER THE SUSTAINED SER THE SUSTAINED SER THE SUSTAINED SER THE SUSTAINED SER THE SUSTAINED SER THE SUSTAINED SER THE SUSTAINED SER THE SUSTAINED SER THE SUSTAINED SER THE SUSTAINED SER THE SUSTAINED SER THE SUSTAINED SER THE SUSTAINED SER THE SUSTAINED SER THE SUSTAINED SER THE SUSTAINED SER THE SUSTAINED SER THE SUSTAINED SER THE SUSTAINED SER THE SUSTAINED SER THE SUSTAINED SER THE SUSTAINED SER THE SUSTAINED SER THE SUSTAINED SER THE SUSTAINED SER THE SUSTAINED SER THE SUSTAINED SER THE SUSTAINED SER THE SUSTAINED SER THE SUSTAINED SER THE SUSTAINED SER THE SUSTAINED SER THE SUSTAINED SER THE SUSTAINED SER THE SUSTAINED SER THE SUSTAINED SER THE SUSTAINED SER THE SUSTAINED SER THE SUSTAINED SER THE SUSTAINED SER THE SUSTAINED SER THE SUSTAINED SER THE SUSTAINED SER THE SUSTAINED SER THE SUSTAINED SER THE SUSTAINED SER THE SUSTAINED SER THE SUSTAINED SER THE SUSTAINED SER THE SUSTAINED SER THE SUSTAINED SER THE SUSTAINED SER THE SUSTAINED SER THE SUSTAINED SER THE SUSTAINED SER THE SUSTAINED SER THE SUSTAINED SER THE SUSTAINED SER THE SUSTAINED SER THE SUSTAINED SER THE SUSTAINED SER THE SUSTAINED SER THE SUSTAINED SER THE SUSTAINED SER THE SUSTAINED SER THE SUSTAINED SER THE SUSTAINED SER THE SUSTAINED SER THE SUSTAINED SER THE SUSTAINED SER THE SUSTAINED SE |                                                                                                                                   |
| ENT MITH THE LOC AMPLIFIES  ENT MITH THE LOC AMPLIFIES  ESOD ETR YES  MOSES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | ı                                                                                                                                 |
| e.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 1                                                                                                                                 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                   |
| FAILURE MODE-LEAK EXTERNAL-VERNIER BERVOCYLI DER REPORTEDLY FAILED DLE TO UIL BEEPING PAST THE BHAFT BEAL FOLLONING OPERATION OF SUST. HTD. BYSTEM AT EDUG PBIG, PER E7-84834 GUIDANCE COMMAND TEBT. ALTMOUGH TEBT AMALYBIB CONFIRMED THE SLIGHT LEAKAGE, IT IS CONSIDERED MARGIMAL RECAUGE MARD GIMBALING MAS REQUIRED TO PRODUCE ANY LEAKAGE AFTER 88 HD URB OF BIATIC TESTIMG. HD DEFICIENCY HAS OBSERVED THAT COULD POSSIBLY CAUSE FAILURE OF THE ASSEMBLY TO OPERATE PROPERLY.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | SEAL FOLLOWING SIS CONTINUED T AGE AFTER SS HO O OPERATE PROPE                                                                    |
| CORRECTIVE ACTION-DESIGN MEMO 862-10-13 DATE-640728 ESTABLISHED NEW SERNOCYLINDER LEAKAGE CRITERIA OF A) 1 DROP MER<br>10 CYCLES PER SEAL MAK. DURING DYMANIC OPJRATION B) 1 DROF IN 12 HRS PER 8EAL MAK. FOR STATIC TESTS.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | F A) 1 DROP PER                                                                                                                   |
| GADGES CONVAIR YES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | VES VICKERS 887028                                                                                                                |
| FAILUSC MOCE-LEAK-EXTERNAL-DURING POST PRI TEMPERATURE-VISRATION PROCE CYCLE, THE TEST UNIT INLET PORT FITTING LEAR<br>ED AT THE INTERFACE OF THE FERPOUS AND NON-FERROIS PARTS. THE LEAKAGE RATE WAS 1/2 CCMIN. ALSO LEARAGE FROM ONE OF<br>THE BOLTS IN THE MOUSING WAS INE BROP PER HINVIE. REG. 18 NO LEARAGE. REF. FPR MR F-4311ST REV A. 3/N 303-0343.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | RT PITTING LEAN<br>SEE PROH ONE OF<br>303-0343.                                                                                   |
| ERFENDED ETT TEST UNIT AL<br>NING OF THE CASE COVER IN                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | NO CONTINUE TES-<br>UTS. REF. FRR F                                                                                               |
| 640617 60/C VES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | VES CADILLAC SASE                                                                                                                 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | ME CASE COVE                                                                                                                      |

FAILURE WOLE-OUT OF FOLERANCE, DUNING PET FLUID-LOM-TEMPERATURE TEST 1-30 DEGREES F1 THE FLOM FROM PORT & MAS 1.86 FPM (AFBUINCMENT 2.15 PLUS OF MINUS ,ZIG 6FM), TEST SPECIMEN S/N 312-0840 (LOT 22), REFER TO FAR 313.

GENERAL BYNANICS CONVAIR BIVISION

13 204 1866

|                                               |                                                                   | ***                                                                                                                                                                                                                                        | 001071                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                         |                                    |                                                                                                                                                                                                                       | 00                                                                                                                                                                          |                                                                                                                                                                                                                                                                                          |                                                                                           |
|-----------------------------------------------|-------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|
| •                                             | MENICLE BITE PR! VENDOR NAME DATE DIF TIME DIF OTH VENDOR PART NO |                                                                                                                                                                                                                                            | LIONEL PACIFIC                               | REFING PAST BHA HE O-RING GROOVE HEMATICH MAS NOT                                                                                                                                                                                                                                                                                                                                                                                                      | RING GOOME SEAL<br>ON OF REJECTABLE<br>; DROP PER 10 CTC                                                                                                                                                                                                                                                                                                                                                                | VES CRESCENT<br>NO HC-67P-4E       | LAPECIFICATION RE                                                                                                                                                                                                     | L PACIFIC                                                                                                                                                                   | ING BLACAET MAS L                                                                                                                                                                                                                                                                        |                                                                                           |
|                                               | 817E P4                                                           | FLOW RATE                                                                                                                                                                                                                                  | ETR YES                                      | ARRING OF I                                                                                                                                                                                                                                                                                                                                                                                                                                            | CH ON THE O-<br>CLASSIFICATI<br>ORE THAN ONE                                                                                                                                                                                                                                                                                                                                                                            | 3 3 3 4                            | 380.                                                                                                                                                                                                                  | ) ) ) ) ) ) ) ) ) ) ) ) ) ) ) ) ) ) )                                                                                                                                       | E UNGROKEN                                                                                                                                                                                                                                                                               |                                                                                           |
| ¥                                             | WEMICLE<br>DATE DIF                                               | F-TOLERANCE<br>TB LOSER 1                                                                                                                                                                                                                  | 21 e0<br>640616                              | ILE TO HEDRA                                                                                                                                                                                                                                                                                                                                                                                                                                           | THE SCRATC<br>ERICH FOR C                                                                                                                                                                                                                                                                                                                                                                                               | 640615                             | FER TO FRR                                                                                                                                                                                                            | 119000                                                                                                                                                                      | AMBOUCER PL<br>DESPITE TAL                                                                                                                                                                                                                                                               | 17. 34. 37                                                                                |
| AAULIC STSTEN-AIRBO                           | DIF DATA BOUNCE<br>PART NUMBER                                    | E LIMITS, THE OUT-O                                                                                                                                                                                                                        | FAR<br>27-85311-805                          | REPORTEDLY FAILED D<br>MOT FULLY BE ASSIGN<br>INSTALLED. ALTMOUGH<br>CREASED THE LEAR RA                                                                                                                                                                                                                                                                                                                                                               | IBILITY FOR CAUSING<br>STABLISHES NEW CRIT<br>S AT STATIC PRESSUR                                                                                                                                                                                                                                                                                                                                                       | UTP-PET<br>27-04211-1              | ATION RESISTANCE NO. 03-5196; LOT 80; NO.                                                                                                                                                                             | UTP-ETT    ET-6581E-609                                                                                                                                                     | CLE THE PEEDBACK TRICKED OFF 1-10 TURN                                                                                                                                                                                                                                                   | T BEREVS AND CONTIN                                                                       |
| DIFFICULTIES REVIEW-HYDRAULIC SYSTEM-AIRBORNE | TESTARPORT NUMBER<br>FAILED COMPONENT NAME                        | COGRECTIVE ACTION-NOT COMBIDERED A FAILURE-WITHIN ALLOMBLE LIMITB. THE OUT-OF-TOLERANCE FLOW RATE HAB DUE TO AN IN<br>Folerance hull bhift hhich has caused it tenperature change. Bince temperature is loner than actual operating combit | LV-98-04-4848-F<br>WERNIER ACTUATOR ABBENDLY | FAILURE MODE-LEAK EXTERMIL. THE VERHIER ACTUATOR ASSEMBLY REPORTEDLY FAILED DUE TO HYDRAULIC FLUID SEEPIMG PAST SHA<br>FT SEALS IN EXCESS OF ONE DROP IN EA MOURS, AMALYSIS COULD NOT FULLY SE ASSIGNED SINCE SCARRING OF THE O-RIMG GROOVE<br>DID NOT PROHISIT CORRECT SEALING AFTER THE O-RIMGS WERE REIMSTALLED. ALTHOUGH FELT LUBRICATCS CONTAMINATION MAS NOT<br>EVIDENT UMON DISASSEMBLY, IT IS POSSIBLE FIBER BLOCKAGE INCREASED THE LEAK RATE. | CORECCTIVE ACTION-NO CORPETIVE ACTION IS GIVEN AS RESPONSIBILITY FOR CAUSING THE BCRATCH ON THE O-RIME GROOME SEAL<br>INC. CANNOT BE AFFIKED. DEST N NEWD 642-10-13 DATED 640728 ESTABLISHES NEW CRITERION FOR CLASSIFICATION OF REJECTABLE<br>LEAKACE. IT IS A LEAK RATE IN EXCESS OF 2 DROPS IN 24 HOURS AT STATIC PRESSURE AND NO NORE THAN ONE DROP PER 10 CTC.<br>ES AT EACH DIMMHIC SEAL UNDER DYMHIC CONDITIONS. | E743561<br>FEEDBACK TRANSDUCER     | FAILUME MOE-OFEN (ELEC). DURING PET INMERSION TENT, INSULATION RESISTANCE MEADING WAS BS ALLOHMS (AFFELFICATION RE-<br>Buirement is greater fram 100 megowas). Test affection 87% 403-1194; LOT 30; meter 10 fra 320. | DAALLICAYB ACTION-INDURANTE SAL BINGTA COMMETION AND TANNOUSER BOOT TO MADELLE GO/C YES LICHE STAINER/VEGNIER CENIER ACTUATOR ABSENDLY, PROBE B E7-85312-809 ABORT BO ACKET | FAILURE MCE-STRUCTURAL-DURING ETT POST VIBRATION PROOF CYCLE THE PREDBACK TRANSCUCER PROSES MOUNTING BLACKET MAS L<br>OOSE AND MAS CAUSED BY THE TWO HOUNTING SCREWS WHICH MAD BACKED OFF 1-10 TURN DESPITE INE UNGROKEN LOCRWINE, REP. TA<br>SA HISTORY LOG NO. 434-2-3.7 8/N 204-0339. | CORRECTIVE ACTION-RETIGHTEN AND RE-LOCKWIRE THE TWO BRACKET BEREWS AND CONTINUE THE TEST. |
| 11 104 1988                                   | 818 IEN<br>846 - 878 IEN                                          | COGRECTIVE ACTION-NOT COSTOLERANCE NULL 3HIFT WHICH IONS, LOT IS ACCEPTED.                                                                                                                                                                 | HYDRAULIC-A/B<br>Bustainga/Vermier           | FAILURE MODE-LEAK EXTERN<br>FT SEALS IN EXCESS OF OME<br>DID NOT PROMISIT CORRECT<br>EVIDENT UPON DISABSEMBLY                                                                                                                                                                                                                                                                                                                                          | CORRECTIVE ACTION-NO COR<br>INC CANNOT BE AFFIKED. DE<br>LEARACE. IT IS A LEAK RA<br>LES AT EACH DYMANIC MEAL                                                                                                                                                                                                                                                                                                           | HTDFAULIC-A/B<br>BUSTAINGR/VEONIER | FALLUKE MONE-OPEN (ELEC)<br>BUIREMENT 18 GREATER THAN                                                                                                                                                                 | CORRECTIVE ACTION-IMPER<br>HYDRAULIC-A/B<br>SUSTAINER/VERMIER                                                                                                               | FAILURE MCE-STRUCTURAL-DURING ETT POST V OOSE AND MAS CAUSED BT THE TWO MOUNTING SC AM HISTORY LOG NO. 454-2-5.7 8/N 204-0385.                                                                                                                                                           | CORRECTIVE ACTION-RETIGN                                                                  |

SENERAL DYNAMICS CONVAIR BIVISION

13 JUN 1966

| 9901 NOT SI                                                                                                      | DIFFICULTIES REVIEW-WYDRAULIC SYSTEM-AIRBORNE                                                                                                                                                                                                                                                                                                  | AULIC STRIEM-AIRBOR                                           | ¥                                        |                     |           |                                                                      |      |
|------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------|------------------------------------------|---------------------|-----------|----------------------------------------------------------------------|------|
| STSTEM<br>SUB-STSTEM                                                                                             | TEST/REPORT NUMBER<br>FAILED COMPONENT NAME                                                                                                                                                                                                                                                                                                    | DIF DATA BOURCE<br>PART HUMBER                                | VEHICLE<br>DATE DIF                      | 911E                | 1 X 0     | VENICLE BITE PRI VENDC: NAME<br>DATE DIF TIME DIF OTH VENDOR PART NO |      |
| HTDRAULIC-A/B<br>BUDTAINER/VERNIER                                                                               | SECISSE.E<br>VERNIER ACTUATOR ASSTSERVO VALVE 87-63312-605                                                                                                                                                                                                                                                                                     | UTP-ETT<br>87-05312-005                                       | 119079                                   | <b>3</b> /9         | 20        | YES LICHEL PACIFIC 696607                                            | 1099 |
| FAILUME MODE-OUT OF TOLE<br>PEA. 13 0.20 MA. MAN. RE                                                             | FAILUME MODE-OUT OF TOLERANCE" DURING ETT POST VIBRATION PROOF CYCLE THE BERNO VALVE MULL CURRENT MAS PLUS 0.44 MA.<br>Reg. 13 0.20 ma. mar. Ref. Task history los No. 654-2-217 8/M 204-0385.                                                                                                                                                 | OOF CYCLE THE BERWO<br>/N 204-0335.                           | VALVE HULL                               | . CURRENT           | •         | Aus 0.44 M.                                                          |      |
| CORRECTIVE ACTION-HOME. TEST CONTINUED.                                                                          | TEST CONTINUED.                                                                                                                                                                                                                                                                                                                                |                                                               |                                          |                     |           |                                                                      |      |
| HTGAAU, IC-A/B<br>BUSTAINER/YERNIER                                                                              | 69C1951.E<br>VERNIER ACTUATOR ASSEMBLT, SERVO V 69-85311-1<br>ALVE                                                                                                                                                                                                                                                                             | UTP-ETT<br>69-65311-1                                         | 640610                                   | <b>9</b> / <b>0</b> | 2 8       | YES LICHEL PACIFIC NO                                                | ***  |
| FAILURE MODE-OUT OF TOLE<br>REG. 15 0.20 MA. MAX. REF                                                            | FAILURE MODE-OUT OF TOLERANCE- DURING THE ETT POST VIBRATION PROOF CYCLE THE BERNO VALVE MALL CURRENT MAS-D.24 MA.<br>Res. 13 0.20 ms. Max. Ref. FPR MR F-4301 ST 8/N 402-0022.                                                                                                                                                                | N PROOF CYCLE THE M                                           | ERVO VALVE                               | MARI CO             | IRENT     | M8-0-84 M.                                                           |      |
| CORRECTIVE ACTION-NOME, TEST CONTINUED.                                                                          | TEST CONTINUED.                                                                                                                                                                                                                                                                                                                                |                                                               |                                          |                     |           |                                                                      |      |
| MYDRALL IC-AZII<br>SUSTAINER/VEENIER                                                                             | LV-A9-04-4'01-F<br>ACTUATOR ASSEMBLY, SERVO VALVE                                                                                                                                                                                                                                                                                              | FAR<br>27-65311-609                                           | 1910                                     | FACTORY             | 763<br>MO | YES LIGHEL PACIFIC 685755                                            |      |
| FAILURE MOIE-OUT OF TOLE PPLIED THAT COULD NOT BE PLACE OF A VENIER ONE. 1                                       | FAILURE MOIE-OUT OF TOLERANCE-DURING FINAL CHECKOUT THE ACTUATOR EMIBITED AN OBCILLATING CONDITION WITH PRESSURE A<br>PPLIED THAT COULD NOT BE ELLHINATED. FAILURE WAS DUE TO "MPROPER ASSEMBLY. A BUSTAINER BERNO VALUE MAS INSTALLED IN<br>PLACE OF A VERNIER ONE. IN ADDITION, THE BERNO VALUE MOZZLE TARGET SCREW WAS NOT PROPERLY BTAKED. | UATOR EXHIBITED AN OPER ASSEMBLY, A SU<br>TAREET SCREW WAS NO | OBCILLATIN<br>STAINER BEI<br>IF PROPERLY | F COMBITE           | 3 4       | ITH PRESSURE A<br>INSTALLED IN                                       |      |
| CORRECTIVE ACTION-50/C A<br>HENDED TO REQUIRE SUBASSE                                                            | CORECTIVE ACTION-CO/C ASSEMBLY AND INSPECTION PERSONNEL MERE INFORMED OF THE FAILURE. THE ASSEMBLY TRAVELLER MAS A<br>Memoed to equire sucassembly part numbers and berial mambers be hand inserted . 'Inspection Personmel.                                                                                                                   | RE INFORMED OF THE<br>S BE HAND INSERTED                      | PALLINE. T                               | HE ASSEM            | DIT T     | RAVELLER MAS A                                                       |      |
| mtdaalic-a/8<br>Bustainea/Veamier                                                                                | 60C1022.2<br>VERNIER ACTUATOR ABSENDLY, PFEDGAC ET-0531E-005<br>K TAANSDUCER                                                                                                                                                                                                                                                                   | UTP-ETT<br>E7-8531E-805                                       | 640603                                   | 5/03                | 7.<br>8   | VES LIGHEL PACIFIC                                                   | *0   |
| FAILURE MODE-STRUCTURAL-DURING THE E. SUSTAINED STRUCTURAL DANAGE. THE MOUNTORY LOG NO. 654-E-501A S/N 403-0377. | FAILURE MODE-STRUCTURAL-DURING THE ETT HIGH TEMPERATURE PLIGHT VIBRATION TEBT IN THE 2-AXIS THE PEEDSACK TRANSDUCER<br>Sustained Structural Danage. The mounting clip on the probe end of the transducer shore off the unit, rep. Task his<br>ont log to 654-2-301a 8/H 403-0577.                                                              | END OF THE TRANSDU                                            | IN THE Z-A<br>CER BROKE                  | 241 245<br>241 145  | FEEDS 1.  | ACK TRANSDUCEN<br>REF. TASK MIS                                      |      |
| CORRECTIVE ACTION-MONE. YEST CONTINUED.                                                                          | TEST CONTINUED.                                                                                                                                                                                                                                                                                                                                |                                                               |                                          |                     |           |                                                                      |      |

PASE 0107

GENERAL DYNAMICS CONVAIR DIVISION

15 JUN 1068

1

| 87.51EM<br>808-5731EM                                                                                        | FALLED CONFORMY NAME                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | DIF DATA BOUNCE<br>PART NUMBER                                                                                                            | VEHICLE<br>DATE DIF                                                     | 317C<br>71MC 010                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 019                                         | WENICLE SITE PRI VENDOR MANE.                    |               |
|--------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|--------------------------------------------------|---------------|
| HTGRAUE IC-A/B<br>BUSTAINER/VERNIER                                                                          | 81.V-80-10-656-F<br>TUBE ASSENDLY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | FA4<br>69-81007-88                                                                                                                        | *000*0                                                                  | FACTORY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 7.63 65/0                                   | Ų                                                | :             |
| FALLURE MODE-STRUCT                                                                                          | FAILUAE MODE-STRUCTURAL-CRACRS IN TUBE FLARES MERE FOUND URDER MAGNIFICATION.<br>Crosescitus actions and Elabine Techniques made affer developed to prevent Cracks.                                                                                                                                                                                                                                                                                                                                                                                                                                               | UDER MACHIFICATION.<br>DED TO PREVENT CRACK                                                                                               | ند .                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                             |                                                  |               |
| MYDGAULIC-A/B<br>BUSTAINER/VEGNIER                                                                           | LV-99-04-4803-F<br>ACTUATOR ASSENDEY, O-RING MFAL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | FAR<br>E7-85314-619                                                                                                                       | 174-D<br>640601                                                         | PACTORY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 7ES LIG                                     | FES LIGHEL PACIFIC 005010                        | 0100          |
| FAILURE MODE-EXTERN AND LOCKNUT ON THE PALL PARTICLES OBSTACLES OBSTACLES HERE GENERATED RING. THE DANAGE TO | FAILURE MODE-EXTERNAL LEAK, DURING HYDRAULIC SYSTEM STATIC PRESSURE TESTS AT 3000 PSIG. THE LEAKAGE DIL FROM THE GA. AND LOCKNUT ON THE PISTON END OF THE ACTUATOR, IT ALGO CONTINED TO LEAK AT ZERO PSIG. THE LEAKAGE MAS CHUSED STATICALES COSSTRUCTING CORRECT SEATING OF THE GLAND STATICALS COSSTRUCTING CORRECT SEATING OF THE GLAND STATICALS HOSPING. THE METAL PARTICLES AND AMODIZE PARTICLES METAL DET COMPANIED BY CUTTING OF THE ACTUATOR HOUSING TREADS DURING HORRIDA AND TUNGUING OF THE GLAND RETAININ RING. THE DAMAGE TO THE THREADS INDICATE A BLIGHT MIBALIGNIENT DURING RETAINER INSERTION. | C PRESSURE TESTS AT ZE ITIMED TO LEAK AT ZE STATIC-SCALIMG O-MISERTIL METALS DURING INSERTIMENTED DURING RETAINED                         | 9000 PSIG. 7, PMC PSIG. 7, PMC PSIG. 7, PMC PCTA, DM AND 13m R INSERTIO | THE LEAKAGE LEAKAGE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE LEAKAGE OF THE L | AGE OIL<br>E MAS CA<br>ES AND A<br>THE GLAN | FRON THE GL. LUSED BY MET MODIZE PART D RETAININ |               |
| CORRECTIVE ACTION-W                                                                                          | CORRECTIVE ACTION-VOAR TO LIGNEL PACIFIC INFORMING THEM OF THE FAILURE AND CAUSE AND REGUESTING THEM TO REVIEW THEI<br>R ASSEMBLY TECHNIQUES TO PRECLUDE DANNGE TO THE HOUSING THREADS AND BUBSEQUENT CONTAMINATION.                                                                                                                                                                                                                                                                                                                                                                                              | OF THE FAILURE AND CA                                                                                                                     | USE AND RECONTANTINA                                                    | 84E 8 T I NE<br>T I ON .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | THEN TO                                     | REVIEW THEE                                      |               |
| HTDRAULIC-A/S<br>SUSTAINER/VE-MIER                                                                           | 69C1962.E<br>VERNIER ACTUATOR ABSENDLT: FEEDBAC 27-65512-65<br>A TRANSOUCER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | UIP-ETT<br>IAC E7-03312-05                                                                                                                | 40387                                                                   | FACTORY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 7E C10                                      | TES LICHEL PACIFIC                               |               |
| FALLUKE MODE-STRUCT<br>SUSTAINED STRUCTURAL<br>STORT LOG NO. 834-E-                                          | FAILUKE MODE-STRUCTURAL-DURING THE ETT LOM TEMPERTURE FLIGHT VIBRATION TEBT IN THE N-AXIB. THE PEEDBACK TAANSDUCER<br>Bustained Structural Dahale. The mountline calf on the Probe Dio of the Transbucer Broke off Both Units. Ref. Tasa Hi<br>Stort Log No. 854-2-5018 a/H 204-0333 408-0878.                                                                                                                                                                                                                                                                                                                    | LEDE OF THE PRINGEN                                                                                                                       | N THE N-AM                                                              | 19. THE P                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | TEDBACK<br>UNITB: A                         | TAANSOUCER                                       |               |
| CORRECTIVE ACTION-NOME.                                                                                      | ONE. TEST CONTINUED.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                           |                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                             |                                                  | <del></del> ; |
| MTDRAUL.C-A79<br>BUSTAINER/VERNIER                                                                           | 757-01-10-10-10-1-10-1-10-1-10-1-10-1-10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | FAR<br>27-00562-3                                                                                                                         | 22 070<br>0403 ER                                                       | FACTORY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | YES ROCHESTER<br>NO 6803-719-               | ROCHESTER<br>6103-715-1                          | •             |
| FAJLURE MODE-INTERN<br>REE GAGES REJECTED O                                                                  | FAILURE MODE-INTERNAL LEAK, PRESSURE GAGES MERE FOUND TO BE LEAKING INTERNALLY DURING MISSILE CHECKOUT. TOTAL OF TH<br>Ree Gages rijected om same missile for bane cause.                                                                                                                                                                                                                                                                                                                                                                                                                                         | DE LEAKING INTERNALL                                                                                                                      | T DUATE M                                                               | 0 3718811                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | CROUT.                                      | 101AL OF TH                                      |               |
| CORECTIVE CCTON-A<br>LD 1PS TO SE USED M<br>TREATING.                                                        | CORECTIVE CCTON-ROCHESTER GAGE TO USE GENERAL ELECTRIC MALOGEN LEAR DETECTUR FOR MELD INSPECTION. MIMIATURIZED ME<br>D TIPS TO BE USED WITH HTDROGEM AS NELDING GAS. CHANGE FLUX MATERIAL AND USE CONTROLLED ATMOSMRENE DUNING TUBE MEAT<br>INESTIMG.                                                                                                                                                                                                                                                                                                                                                             | ELECTRIC MALGGEN LEAM DETECTUR POR MELD INSPECTION. MINISTURIZED ME<br>CHANGE FLUX MATERIAL AND UNE CONTROLLED ATMORMERE DURING TUNE MEAT | R POR MELD<br>CONTROLLED                                                | INSPECT<br>A THOSHAG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | ICM. MIN                                    | IATURIZED ME<br>ME TUBE MEAT                     |               |

SEMERAL DYNAMICS CONVAIR DIVISION

11 JUN 1106

# CONVAIR DIVIBION

DIFFICULTIES REVIEW-HTDRAULIC STRTEM-AIRBORNE

|                                             |                                           |                                                                                                                                                                                                              | 491227                                    | 2                                                                                                                                                                                                                    | U LI                                                                                                                                                                                                                                            | 0000                                                          | 0 - 3                                                                                                                                                                                                                                                                                                                                                            |                                                                            |                                      | <b>4</b> 2                                                                                                                                                                                                                                                                                |
|---------------------------------------------|-------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|--------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| MANA<br>PART B                              | PANTEX                                    | ž                                                                                                                                                                                                            | 35 Y                                      | ₹<br>8                                                                                                                                                                                                               | 4 1.00 I                                                                                                                                                                                                                                        |                                                               | 1. 144<br>10 ata<br>146 Bi                                                                                                                                                                                                                                                                                                                                       |                                                                            |                                      | 10 ME                                                                                                                                                                                                                                                                                     |
| VENDOR MANE                                 | NO BENBON PANTEX                          | # <b>PAR</b>                                                                                                                                                                                                 | YES CADILLAC GAGE                         | 80 F                                                                                                                                                                                                                 | ALVE TAI<br>60/C OPI                                                                                                                                                                                                                            | YES STERER<br>NO 13000                                        | AULIC ON<br>PAMEDOG<br>REPLACE                                                                                                                                                                                                                                                                                                                                   |                                                                            | VES VICKERS<br>NO AA-\$0410-L-2      | T FAILE                                                                                                                                                                                                                                                                                   |
| 2 O                                         | 8 5                                       | 8                                                                                                                                                                                                            | ž 8                                       | 3016                                                                                                                                                                                                                 | 9                                                                                                                                                                                                                                               | 2 3                                                           | 4 0                                                                                                                                                                                                                                                                                                                                                              |                                                                            | ÷ 8                                  | 25 Z                                                                                                                                                                                                                                                                                      |
| VEHICLE SITE PHI VENDOR MINE                | <b>E</b> /                                | ECTIVE AC                                                                                                                                                                                                    | FACTORY                                   | EPTABLE V<br>PPEA.                                                                                                                                                                                                   | OF THE SE<br>NOPECTORS                                                                                                                                                                                                                          | FACTORY                                                       | D, LEAKED<br>YALVE BO<br>THE VENDO                                                                                                                                                                                                                                                                                                                               |                                                                            | COMATA                               | TE81, TH                                                                                                                                                                                                                                                                                  |
| VEHICLE<br>DATE DIP                         | 21 00<br>24 0 8 21                        | CAUSES.                                                                                                                                                                                                      | 035011                                    | RON AN ACC<br>TO THE PLA                                                                                                                                                                                             | R STAKING                                                                                                                                                                                                                                       | <b>64</b> 0518                                                | UNE APPLIE<br>ACR ON THE<br>MORRED BY                                                                                                                                                                                                                                                                                                                            |                                                                            | <b>640510</b>                        | T RESPONSE<br>0.05 SEC.                                                                                                                                                                                                                                                                   |
| DIF DATA SOURCE<br>PART NUMBER              | FAR<br>87-00558-5                         | DAMAGED BY UMKNOWN<br>PRESSURIZED RESERV                                                                                                                                                                     | FAR<br>27-05314-017                       | VOLTAGE BHIFTED F<br>THE TARGET BCREW                                                                                                                                                                                | TED THEN FOR PROPE<br>REM STAKING SY BOT                                                                                                                                                                                                        | FAR<br>27-04208-1                                             | LVE, MITH NO PRESS<br>RESS CORNOSION ATT<br>INITER NAD BEEN RE                                                                                                                                                                                                                                                                                                   | FLOW LIMITERS.                                                             | UTP-PRT<br>R7-06580-3                | OOF CYCLE TRANSIEN<br>REQUIRED TINE OF                                                                                                                                                                                                                                                    |
| TEST/REPORT HUMBER<br>FAILED COMPONENT NAME | A-86-10-283-F<br>Bustainer mydraulic tank | FAILUME HODE-ATRUCTUMAL-MESERVOIR WAS OVER PRESSURIZED AND DAMAGED BY UMKNOWN CAUSES.<br>Corrective action-survey 47-64 was initiated to locate overpressurized reservoirs. Corrective action is Part of Pro | 3LV-99-04-4796-F<br>ACTUATOR, 9ERWO VALVE | FAILURE HODE- OUT OF TOLERANCE. DURING ETT TEBTING THE MULL VOLTAGE BHIFTED FROM AN ACCEPTABLE VALUE OF PLUB ON MIN<br>US 0.2 MA TO -0.5 MA. FAILURE WAS DUE TO IMPROPER STAKING OF THE TARGET BCREM TO THE PLAPPER. | CORRECTIVE ACTION-ED/C SURVEYED ALL SERVO VALVES AND INSPECTED THEM FOR PROPER STAKING OF THE SERVO VALVE TARGET SC<br>REMS. CADILLAC INITIATED 100 PERCENT INSPECTION OF TARGET SCREM STAKING SY BOTH VENDOR INSPECTORS AND GO/C OPI INSPE<br> | A-99-04-4793F<br>CRIFICE-FLOW LINITER/O-RIMG SEALS 27-04206-1 | FAILURE MOE-BIRUCTURAL. DURING RECEIVING INSPECTION THE VALVE, MITH NO PRESSURE APPLIED, LEAKED MYDRAULIC OIL THRO<br>UGH THE VALVE BOOT. CAUSE OF LEARAGE NAB AN INTERGAINLAR BIRESS CORROBION ATTACK ON THE FALVE BOOF. A SHEDDED BTAT<br>IC O-RING WAS ALBO UNCOVERED DURING DIBABBENDLY. THIS FLOW LIMITER HAD BLEN REWORKED BY THE WENDOR TO REPLACE THE RU | CORRECTIVE ACTION-60/C BURVEYED ALL THE IMPROPERLY RENORMED FLOW LIMITERS. | 89A1904.4<br>Htdraule Purp           | FAILURE MODE-OUT OF TOLEAANCE. DURING POST PRI VIBRATION PROOF CYCLE TRANSIENT RESPONSE TEST, THE UNIT FAILED TO RE<br>GULATE THE FLUID DELIVERY FROM FULL FLOW TO ZERO FLOW IN THE REQUIRED TINE OF 0.03 SEC. THE ACTUAL TINES VARIED SEIM<br>EEN 0.075 TO 0.065 REC. REF. D/N 803-0551. |
| BYBTEN<br>BUG-BYBTEN                        | HTDEAULIC-A/8<br>Sustaimer/Verhigr        | FAILURE HODE-STRUCTURAL-<br>CORRECTIVE ACTION-SURVEY<br>JECT CLASP.                                                                                                                                          | HYDRAULIC-A/B<br>BUSTAINER/VERNIER        | FAILURE MODE- OUT OF TOL<br>US 0.2 MA TO -0.5 MA. FAI                                                                                                                                                                | CORRECTIVE ACTION-60/C S<br>REWS. CADILLAC INITIATED<br>CTORS.                                                                                                                                                                                  | MTDRAULIC-A/B<br>SUSTAINER/VERNIER                            | FAILURE MODE-STRUCTURAL. UGH THE VALVE BODY. CAUSE IC O-RING WAS ALSO UNCOVE BREE PRODUCTS.                                                                                                                                                                                                                                                                      | CORRECTIVE ACTION-60/C &                                                   | MYDRAUL I C-A/B<br>Bubtainer/Vernjer | FAILURE MODE-OUT OF TOLERANCE. DURING POS<br>GULATE THE FLUID DELIVERY FROM FULL FLOW T<br>EEM 0.078 TO 0.068 REC. REF. 5/N 303-0381.                                                                                                                                                     |

CORRECTIVE ACTION-TEST CONTINUED. PUMP CANNOT PASS THE TESTS USING THE PRESENT SPECIFICATION PUMP RESPONSE REQUIREM ENTS. REF. FPR FS 654-Z-429 SCM NO.14170 CHANGES THE PUMP REQUIREMENTS.

GENERAL BYNAMICS CONVAIR DIVIBION

CONVAIN

18 1UM 1866

!

Ì

|                                                                                                | TAILED CONTORN ON THE                                                                                                                                                                                                                                         |                                                                                                                                 |                                                                                      | DATE DIF TIME DIF | OTH WEND                      | VENDOR PART NU                    |               |
|------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|-------------------|-------------------------------|-----------------------------------|---------------|
| MYDAAULIC-A/B<br>BUSTAINER/VERNIER                                                             | \$9.41904.4<br>PUMP                                                                                                                                                                                                                                           | U19-PR1<br>R7-0880-8                                                                                                            | 716076                                                                               | CONVAIR           | VES VICKERS<br>NO AA-6041     | VICKERS<br>AA-60410-L-2           | • 104         |
| FAILURE MODE-OUT OF<br>T FROM FULL FLOM TO 21<br>PEF. S/M 303-0331.                            | FAILURE MODE-OUT OF TOLERANCE, DURING THE LAT TRANSIENT RESPONSE TEST THE UNIT FAILED TO REGULATE THE FLUID DELIVER<br>From Full Flow to zero flow in the reguired time of 0.03 dec. The actual times varied between 0.030 to 0.045 dec.<br>Ef. 3/m 303-0331. | RESPONSE TEST THE UNI<br>.05 BEC. THE ACTUAL TIM                                                                                | UNIT FAILED TO REGULATE THE FLUID DELIVE<br>TINCE VARIED BETWEEN D.DBU TO D.DBS BEC. | GTHEEN O.         | . THE FLU                     | .065 BEC.                         |               |
| CORRECTIVE ACTION-TE.                                                                          | ON-TEST CONTINUED. PUMP CAMBOT PASS THE TESTS USING THE PRESENT PUMP SPECIFICATION TARMSIENT RESPONS<br>Ref. FPR FR 854-2-429 SCM NO. 14170 CHANGES THE PUMP REQUIRENENTS.                                                                                    | TESTS USING THE PRESEN<br>NEES THE PURP REGULARINE                                                                              | T Puer BPEC                                                                          | 3F1CA 710         | TAMBIE                        | NT RESPONS                        |               |
| HYDRAULIC-A/B<br>BUSTAINER/VERNIER                                                             | LV-89-10-246-C<br>P4E33-WE GACE                                                                                                                                                                                                                               | FAR<br>27-06562-3                                                                                                               | 1510                                                                                 | FACTORY           | 8000<br>6003                  | #0CHESTER 6AGE<br>#903-719-1      | 3             |
| CORRECTIVE ACTION-ROLL TIPS TO BE BE USED EAT TREATING.                                        | ON-ROCHESTER GAGE TO UNE GENERAL ELECTRIC HALDGEN LEAR DETECTOR FOR MELD INSPECTION. MINIATURIZED NE<br>. USED WITH HTDROSEN AS MELDING GAS. CHANGE FLUE NATERIAL AND USE CONTROLLED ATMOSPHERE DURING TUBE H                                                 | IC MALOBEN LEAK DETECTO<br>ME PLUK MATERIAL AND U                                                                               | POR MELD<br>HE CONTROLL                                                              | INSPECTIO         | M. MINIA<br>MERE DUR          | TUREZED WE<br>ING TUBE M          |               |
| HYDRAULIC-A/B<br>SUSTAINER/VERNIER                                                             | 6461917.5<br>HYDRAULIC PLEX HOSE ABBY.                                                                                                                                                                                                                        | UTP-P4T<br>E7-06571-5                                                                                                           | 940300                                                                               | OTHER             | YES AEROGUIP<br>NO 6775A1 -6  | AEROGUIP<br>677541 -6-0215        | 1 1 1 1 1 1 1 |
| FAILURE MODE-STRUCTURAL, DURING<br>PREVENTED THE NUT FROM ROTATING<br>R F-4273 ST 9/NSOS-5780. | L. DURING<br>ROTATING                                                                                                                                                                                                                                         | THE OVER TORBUE TEST THE UNIT FAILED WHEN THE FLANKE EMPANDED BENEATH THE 8 MUT AND AFTER 9 OVERTORBUE APPLICATIONS. REF. FP4 M | PLANKE EIN<br>IN OVERTORN                                                            | ANDED BEN         | EATH THE<br>ATTOMS.           | D NUT AND<br>ACF. FPA B           |               |
| CORRECTIVE ACTION-TE                                                                           | ON-TEST TERMINATED. HOME REPLACED AND TEST RERUM. OWERTORBUE IS NOT HORMAL FOR HOME INSTALLATION ON A FR 634-E-217.                                                                                                                                           | ST REALM. OWESTONBUE I                                                                                                          | A NOT HORM                                                                           | 1 708 MOS         | E INSTAL                      | 1471QH QH                         |               |
| HTDRAULIC-A/B<br>BUBTAINER/VERNIER                                                             | LV-88-10-254-F<br>HYDRAULIC FLEH HORE ASSEMBLY                                                                                                                                                                                                                | FAR<br>87-06571-58                                                                                                              | #0#0#<br>#10#0#                                                                      | PACTORY           | TES AEROBULP<br>HOME 877160-6 | TES AEROBULP<br>HONEST7160-0-0226 | •             |
| PAILURE MODE-CONTABL                                                                           | PAILUME MODE-COMTANIMATION. PLEXHOME PAILED DUMING LEAR CHECK MEAR THE OFFMET END PITTING DUE                                                                                                                                                                 | L CHECK NEAR THE OFFBET                                                                                                         | E 2 03                                                                               | 86 TO             | TO CONTANINATION.             | ¥.10#.                            |               |
|                                                                                                | ON PAILURE MAS COMFIRMED DUE TO CONTANIMATION OF SEAL AREA. WENDON WAS MOTIFIED TO CORRECT ASSEMBLY                                                                                                                                                           | MITON OF BEAL AREA. WE                                                                                                          | * ** **                                                                              | 717160 70         | CORRECT                       | 4886m8LV                          |               |
| PROCEDURES TO PREVENT                                                                          | EVENT CONTANIMATION.                                                                                                                                                                                                                                          |                                                                                                                                 |                                                                                      |                   |                               |                                   | _             |

.

- La - Li

\* \*\*\*\*

11 191 191

| DIMMICE  | CONVAIR DIVIBION |
|----------|------------------|
| SCHERAL. | CONVAIR          |
|          |                  |
|          |                  |

| FAILURE MODE-OUT OF TOLEMANCE DURING POST VIBRATION PROOF CYCLE THE BENNO VALVE MULL CURRENT MAS-0.50 MA. AEG. IS 0.20 MA. MAIL THE FAILURE WAS CAUSED BY A MOMEMENT OF THE TARGET SCREW IN VALVE. REF. FPR MR F-4283 ST 3/N 305-0646.  CORRECTIVE ACTION-TEST CONTINUED. THE IMPROPER SOLDERING OF THE TARGET SCREW IS A WENDOR BUALITY CONTROL PROBLEM. A SOLDER CHECK PROCEDURE IS BEING WORKED OUT. REF. FRR FR 834-2-817.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| BEING MORKED OF<br>H-99-04-4794-F                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| SERVO VALVE, O-RING SEAL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| PAILURE HODE-LEAK EXTERNAL. DURING ASSENDLY FUNCTIONAL CHECKING THE SERVOVALVE REPORTEDLY LEAKED HYDRAULIC OIL AT THE RATE OF 40 DROPS FER HIMUTE FROM THE MALL ADJUSTNENT SCHEM HOLE. LEAKAGE WIS DUE TO DAMAGED O-RING SEALS THAT WER E CUT ON THREADS OF THE MALL ADJUSTNENT SCHEM, THREADS WERE CUT TOO DEEP THAN HORMAL. THE WENDORS DRANTING CALLOUT ON LY LISTED A HIMIMUM DEFTH.  LY LISTED A HIMIMUM DEFTH.  CORRECTIVE ACTION-VCAR ISSUED TO CADILLAC TO ADD A DIMENSION POR MAXIMUM MALL ADJUSTNENT SCHEM HELI-COIL THREAD DEPTH OR CADILLAC DAMING 1820E. THE NEW RENIED FOR THE OR CADILLAC DAMING 1820E. THE NEW RENIED FOR THE OR CADILLAC DAMING 1820E. THE NEW RENIED FOR THE OR CADILLAC DAMING 1820E. THE NEW RENIED FOR THE OR CADILLAC DAMING 1820E. THE NEW RENIED FOR THE OR CADILLAC DAMING 1820E. THE NEW RENIED FOR THE OR CADILLAC DAMING 1820E. THE NEW RENIED FOR THE OR CADILLAC DAMING 1820E. |
| DEAULIC-A/B LY-80-04-4788-P FAR 3500 WTR YES LIONEL STAIMER/VERNIER ACTUATOR ASSEMBLY, O-RING SEALS 27-8512-805 840501 NO NO                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

FAILURE MODE-OUT OF SPECIFICATION. DURING ENGINE SIMBALLING TESTS, THE UNIT LEAKED IN EXCESS OF THE SPECIFICATION L IMITS OF 1 DROF PER ES CYCLES. FAILURE SELIEVED DUE TO THE FLAKING OF THE CHROME PLATING CONTAINMATING THE O-RINS SU MFACES.

| CONVAIR DIVIBION |
|------------------|
| COMVAIR          |
|                  |

11 Jun 1966

1

|                                                                                         | DIFFICULTIES REVIEW-WEDRAULIC STATEM-AIRBORME                                                                                                                                                                                                                                                                   | RAULIC STATEN-AIRBO                                                                                                                          | Ä                               |                          |                                                |        |
|-----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|--------------------------|------------------------------------------------|--------|
| SYSTEM<br>BUG-SYSTEM                                                                    | TESTAEPOST NUMBER<br>PAILED COMPONENT NAME                                                                                                                                                                                                                                                                      | DIF DATA SOURCE<br>PART NUMBER                                                                                                               | WENICLE DATE DIF TIM            | 817E PRI<br>71ME 01F OTH | VENDOR NAME<br>VENDOR PART NO                  |        |
| CORRECTIVE ACTION-VC<br>FLAKING PROBLEM.                                                | COMBECTIVE ACTION-WEAR TO LIGHEL PACIFIC REBUEBTING THEM TO COMBECT THE CHROME PLATING. PROCEDURE TO ELINI-ATE THE<br>LAKING PROBLEM.                                                                                                                                                                           | O CORRECT THE CHROM                                                                                                                          | PLATTIME. PRO                   | CEBURE 10                | ELINE ATE THE                                  | •      |
| HYDRAULIC-A/B<br>BUSTAINER/VERMIER                                                      | E743478<br>SERVO VALVE, FEEDBACK TRANSDUCER                                                                                                                                                                                                                                                                     | UTP-PET<br>27-04204-1                                                                                                                        | 640430 66/C                     |                          | YES CRESCENT<br>NO MC-108-4E                   | :      |
| FAILURE MOCE-OUT OF<br>6 EO KILCHMS VS. SPEC<br>AND B/M 403-1458(LOT                    | FAILUME MODE-OUT OF TOLEAANCE, DUMING P.E.T. INMERSION TEST, INSULATION RESISTANCE WAS OUT OF SPECIFICATION (MEADE)<br>BO KILCHAS VS. SPECIFICATION OF GAEATEN THAN 100 MEGONNS). REFER TO PAR 188. TEST SPECIMENS 8/N 401-1418 (LOT 85)<br>NO B/N 403-1458(LOT 88).                                            | II, INSULATION RESIST<br>. REFER TO PAR 156.                                                                                                 | ANCE WAS OUT O                  | 3F 3PEC1F                | SPECIFICATION (READIN<br>1/N 401-1418 (LGT 85) | ·      |
| CORRECTIVE ACTION-LOTS ES AN FORE BEING SENT TO GO/C. VCAR MG. NO APPAKENT INPROVENENT. | PROCESSED, VENDOR                                                                                                                                                                                                                                                                                               | TO VENEOR, VENEOR REQUIRED TO PERFORM IMMERSION TEST ON ALL UNITS BE<br>TO CHAMGE TO AN EPOXY SEAL BETWEEN COMMECTOR PLANGE AND MOUNTIME PLA | ERFORN JINERS<br>EEN CONNECTOR  | TLANCE AL                | ON ALL UNITS BE<br>NO MOUNTING FLA             |        |
| HYDRAULIC-A/B<br>BUSTAINER/VEGNIER                                                      | A-88-04-4810-F<br>ACTUATOR-VERNIER                                                                                                                                                                                                                                                                              | FAR<br>E7-06573-3                                                                                                                            | 640430 FAC                      | FACTORY VES              | YES LIGHEL PACIFIC<br>NO 2782-2                | 5      |
| FAILURE MODE-EXTERNA<br>C OIL AT THE RATE OF<br>MASHERS COULD HAVE I                    | FAILURE MODE-EXTERNAL LEAR. DIRING PROOF TESTING AT 4000 PSIG IN RECEIVING INSPECTION, THE ACTUATOR LEARED MYDRAULI<br>FOIL AT THE RATE OF 3 DEOPS PER MINUTE, PAILURE COULD NOT BE CONTINED DURING FAILURE ANALYSIB. THE FELT LUBAICATOR<br>MANHERS COULD MANE INTERFERED WITH MEALING AND CAUSED THE LEARAGE. | PEG IN RECEIVING IN<br>BE CONTINED DURING<br>LEARAGE.                                                                                        | PECTION, THE .<br>FAILURE AMALT | SCTUATOR DIB. THE        | LEAKED HYDRAUL!<br>FELT LUBAICATOR             | ·      |
| CORRECTIVE ACTION-A<br>APPROVAL, TEFLON MIPE                                            | COMECTIVE ACTION—A DEBIGN CHANGE WAS RECOMPRIDED TO ADD A TEPLOM MIPER. ACTION PER ECP 5448 MAS RECEIVED CUSTOMER<br>PPROVAL. TEFLOM WIPERS WILL REPLACE FELT WIPERS.                                                                                                                                           | TEPLON MIPER. ACTIO                                                                                                                          | N PEA ECP SAA                   | D 38 8 8 8 8 5 C         | LIVED CUSTOMER                                 |        |
| HYDRAUE IC-A/B<br>SUSTAINER/VERNIER                                                     | 6961917.3<br>HTD:AULIC FLEM MOSE ABBY                                                                                                                                                                                                                                                                           | UTP-PRT<br>B7-06971-5                                                                                                                        | 640489 OTHER                    |                          | TES AEROGUIP<br>NO 677341-6-0215               | • 101• |
| FAILURE MODE-STRUCTU<br>PREVENTED THE NUT FRO<br>MR F-4252 ST S/N 202-                  | FAILUKE MODE-STRUCTUMAL-DURING THE ONER TORBUE TEST THE UNIT FAILED WIEN THE PLANKE EXPANDED BENEATH THE B NUT AND PREYENTED THE NUT FACH KOTATING AFTER 2 OVER TORBUE APPLICATIONS. REF. FPR NO 18 18 NIN. OWERTORBUE APPLICATIONS. REF. FPR NM F-4252 ST 8/N 202-1696.                                        | AIT FAILES WHEN THE CATIONS. RES. IS IS NO                                                                                                   | LANGE EMPANDE<br>N. OVERTORBUE  | D BENEATH<br>APPLICAT    | THE B NUT AND<br>IONS. REF. FPR                |        |
| CORRECTIVE ACTION-1E                                                                    | ACTION-TEST TERMINATED HOSE REPLACED AND TEST RERUM.                                                                                                                                                                                                                                                            | Eaus.                                                                                                                                        |                                 |                          |                                                |        |
| HYDRAULIC-A/B<br>BUBTAINER/VEGNIER                                                      | LV-00-04-4700-F<br>ACTUATOR/VALVE-6ERVO                                                                                                                                                                                                                                                                         | FAR<br>87-65314-619                                                                                                                          | 1740 FAC                        | PACTORY TES              | TES LIGHEL PACIFIC<br>NO                       |        |
|                                                                                         |                                                                                                                                                                                                                                                                                                                 |                                                                                                                                              |                                 |                          |                                                |        |

FAILURE WISE-OUT OF TOLERANGE-DURING RECEIVING INSPECTION TESTING THE BERVO CYLINDER ARREMALY DID NOT MEET THE BFEC INTERTOR PARAMETER LIMITAL IT MAN ALBO REPORTED THAT THE BERVO CYLINDER BOTTOMED GUT IN THE EXTENDED POBLT

**\***-

11 104 1066

|            | BJ VI S I CON |
|------------|---------------|
| A JUNEAU P | CONTAIN       |
|            |               |

DIFFICULTIES REVIEW-HYDRAULIC SYSTEM-AIRBORNE

| SVSTEM<br>BUB-SYSTEM                                                                                               | PAILED COMPONENT MANE                                                                                                                                                                                                                                                                                                                                                                                                                                                | BIF BATA BOUNCE<br>PART HANDER                                                 | WENTELE STIE PRI<br>BATE DIP TIME DIP OTH                    | PAS VENDOR MANE<br>OTH VENDOR PART NO                             |               |
|--------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|--------------------------------------------------------------|-------------------------------------------------------------------|---------------|
| NOT TO DEAMING BINEHSIONS.                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                |                                                              |                                                                   | ******        |
| CORRECTIVE ACTION-CADILLA<br>TO PRECLUDE ANY CONTANINA                                                             | COMECTIVE ACTION-CABILLAC GASE INITIATED INSPECTION OF THE TORGUE MOTOR AREA JUST BEFORE FINAL ASSENSLY OF THE CAP<br>To Preclude any contamination being present.                                                                                                                                                                                                                                                                                                   | TORBUE HOTOR AREA                                                              | JUST BEFORE FINAL                                            | ASSEMBLY OF THE CAP                                               |               |
| MYDRAULIC-A/B<br>Bustainer/Vermier                                                                                 | SUSTAINER HYDRAULIC TANK, O-RING                                                                                                                                                                                                                                                                                                                                                                                                                                     | UTP-PET<br>27-26552-5                                                          | 8404E8 CONVAIR                                               | 7ES BENBON<br>NO 88636                                            | 91940         |
| FAILURE MODE-INTERNAL LEA<br>N O-RING MAS ER ML./MR. RE<br>AMK MAS MEAVILT CONTAMINAT                              | TERNAL LEAKAGE. D'MING TEMPERATURE AND LIFT CYCLING TESTS THE GAS PRECHARGE LEAKAGE ACROSS THE ML./MR. RES. IS EML./MR. MAX. AND MAS CAUSED BY SMALL CUTS AND PINNOLES IN THE MERSTYS G-RIMS. CONTANIMATED. REF. FRR FRESA- 2-283 S/M 508-0372.                                                                                                                                                                                                                      | CYCLING TESTS THE G.<br>BY SMALL CUTS AND I<br>1372.                           | 18 PRECHARGE LEASA<br>PINNOLES IN THE NS                     | CE ACROSS THE PISTO<br>28778 O-RIMS. THE T                        |               |
| CORRECTIVE ACTION-NOME-HT                                                                                          | CORRECTIVE ACTION-NOME-HYDRAULIC TEST SYSTEM CLEANED UP.                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                |                                                              |                                                                   |               |
| MTDRAULIC-A/B<br>Sustainer/Vermier                                                                                 | CT-98-04-167<br>SUSTAINER ACTUATOR ASSEMBLY                                                                                                                                                                                                                                                                                                                                                                                                                          | FAR<br>27-05314-010                                                            | 1350 CK16A<br>6404g7                                         | YES LICHEL PACIFIC 891380                                         | 991360        |
| FAILURE MODE-EXTERNAL LEA<br>ULIC FLUID IN EXCESS OF 1<br>ILURE MAS NOT REPEATED DUR<br>MIMANTS ON THE O-RIME AS A | FAILURE MODE-EXTERNAL LEAR. DURING A SURVEILLANCE INSPECTION THE ACTUATOR ASSEMBLY WAS OBSERVED TO BE LEAKING HYDRA<br>ULIC FLUID IN EXCESS OF 1 DROP IN 24 MOURS. THE PRESSURE WAS STANDAY RESERVOIR PRESSURE OF 100 PSIG. THE REPORTED PA<br>ILURE WAS NOT REPEATED DURING EXTENSIVE FAILURE AMALYSIS TESTING. THE MEDORTED PAILURE MAY HAVE BEIN CAUSED BY CONTA<br>MIMANTS ON THE O-RIMG AS A MIGH LEVEL OF CONTAMINATION WAS POUND DURING THE PAILURE AMALYSIS. | W THE ACTUATOR ASSESSION STANDSY RESERVOIR (TIME, THE REPORTED DURING THE FAIL | HESSHAR OBSERVED<br>PRESSHAR OF 100 PS<br>FAILURE NAY HAVE B | TO BE LEAKING HYDRA<br>16. THE REPORTED FA<br>ELM CAUSED BY CONTA |               |
| CORRECTIVE ACTION-NO CORRECTIVE ACTION TAKEN.                                                                      | ECTIVE ACTION TAKEN.                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                |                                                              |                                                                   |               |
| HYDRAULIC-A/B<br>BUSTAINER/YERNIER                                                                                 | LV-A9-10-250-F MANUALLY-CPERATED THO MRY HYDRAUL! 27-06560-8 C PLCAP-CONTRUL VALVE                                                                                                                                                                                                                                                                                                                                                                                   | FAR<br>27-06566-3                                                              | 3530 FACTORY<br>640428                                       | 00 57EAER<br>00 12600                                             | <b>916989</b> |
| FAILURE MODE-ERRATIC OPER TOMED.                                                                                   | IATIC OPERATION. BUE TO INCOMBECT OPERATION OF THE VALVE. THE VALVE WAS NOT CORRECTLY MANMALLY POSIT                                                                                                                                                                                                                                                                                                                                                                 | OF THE VALVE. THE W                                                            | ALVE MAS NOT CORRE                                           | CTLY MANUALLY POSIT                                               |               |
| CORRECTIVE ACTION-NO FAIL<br>TO RESUIRE A FULL SO DEGA                                                             | CORRECTIVE ACTION-NO FAILURE. VALVE NAS NOT CORRECTLY OPERATED. FACTORY ERUIPMENT OPERATING PROCEDUMES NEME REVISED<br>TO RESUIRE A FULL SO DECACE ACTUATION OF NAMBLET OPERATED CAN.                                                                                                                                                                                                                                                                                | TZD. PACTORY BEUIFM<br>CAM.                                                    | ENT OPERATING PROC                                           | EDUMES WERE REVISED                                               |               |
| MTDRAULIC-A/B<br>BUBTAINER/VERNIER                                                                                 | A-99-04-4770-F<br>ACTUATOR ASSENDLY, SERVO VALVE                                                                                                                                                                                                                                                                                                                                                                                                                     | PAR<br>87-01314-021                                                            | 49F FACTORY<br>\$40488                                       | YES LIGHEL PACIFIC NO.                                            |               |

FAILURE MOJE-STRUCTURAL. BURING A RECEIVING INSPECTION FUNCTIONAL TEST THE PISTON OF THE SERVO CYCLINDER MENT MAND OVER MICH PRESSURE MAS APPLIED AND THE BERYO CYLINDER PAILED TO RESPOND TO ANT INPUT BISMAL. CAUSE MAS BUE TO THE BE

SEMERAL BYMANICS CONTAIN BIVISION

4

11 Jun 11

| TITION TO STATE THE TITION WHILE THE TITION TO THE TITION TO THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE TITION THE T |                                                                      |                                                                                                                   | CHICAGO OF THE PROPERTY OF THE PARTY OF THE | !                       |                       |                                |                                           |       |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|-----------------------|--------------------------------|-------------------------------------------|-------|
| LOW, THE CALLE OF THE VALVE MODE METERALD HAS DEACHED THE CONTROL PORTS MAKING THE PRESSURE ON THE DAWTHON END.  LOW, THE CALLE OF THE VALVE MODE METERALD HAS DEACHED TO INADVENIENT OMERSHESSURESTON OF THE RETURN THE CALLE OF THE VALVE MODE OF THE TRIVER OF THE TRIVER TO THE RETURN THE THE THE TRIVER AND CALLES.  RETABLE THE TRIPER THAN THE PROCEDURE TO EDBANE EINILIAR PAILURES DO NOT RECENT.  RETABLE THAN THE TEST EASINGMENT AND PROCEDURE TO BEAUTH EINILIAR PAILURES DO NOT RECENT.  RETURN THE TRIVER NOTE COMING PRON LOT AND DARRIED TO LIFE CYCLING TEST ALL FAILED. THE PRESENT TEST RECEIVEN. LOT 19 REJECTED. ME.ER TO P BADY METER TO THE THE TEST DAMIL CRACKS WE SPECIMEN. LOT 19 REJECTED. ME.ER TO P BADY METER TO THE THE TRIPE THE TEST.  RECEIVEN. LOT 19 REJECTED. ME.ER TO P BADY METER TO THE THE THE TEST. DAMIL CRACKS WE SPECIMEN. LOT 19 REJECTED. THE TREE THE TEST DAMIL CRACKS WE WEREITE PLOY LINE WENTER THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE THE TREE TH | #31614<br>#31614 - 624                                               | TEST/ARPORT NAMER<br>FAILED CONFORENT MANE                                                                        | DIP BATA BOUNCE<br>PART NUMBER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | WHICLE<br>DATE DIF      | 11 017<br>11 017      | PRE VENDOR<br>OTH VENDOR       | A 1 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 |       |
| CITION-GOT EXCELLING INSPECTION AND BUNLITY CONTROL APPRISED OF THE FAILURE AND CAUST. BALLITY CONTROL  10 REVIEW THE TEST EQUIPMENT AND PROCEDURE TO DISJURE SIMILIAR FAILURE BO NOT RECUR.  1213337  11 PARTIE TO FINE THE TOP LIMITED VALVE TO PARTIE TO THE COLUMN FOR STORE TO THE TOP TO THE TOP TO THE TOP THE TOP TO THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP THE TOP T | ACES IN THE SERVO VALVE OF THE SPCOL LON. THE N STATEN DURING THE IN | T SPOL BEING MECESICS. THIS SLECKED<br>CAUSE OF THE VALVE SPOR MELLY REEK<br>HITTAL SHARES OF THE PURETICHAL TEST | and contact foats to see                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | MAINE THE<br>FRIENT ONE | MESSURE<br>PAESSURE   | ON THE DANFIN<br>ZATION OF THE | ACTUM<br>ACTUM                            | •     |
| MER WENNIER PLON LINITER VALVE ET-BAEDG-1 GADAEL 60/C VES STEARS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 5-                                                                   | TO RECEIVING INSPECTION AND BUNALITY (IN THE TEST EQUIPMENT AND PROCEDUME                                         | CONTROL APPRIACE OF 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | HE FAILURE              | AND CAUS<br>NOT RECUM | E. BUALITY CO                  | M TROL                                    |       |
| CETINGTURAL. LEARAGE NOTED CONING PRON SPECIMEN MALLS DURING 200 MOUR P.E.T. LIFE TEST. DUALL CRACAS ME PERCINEN. LOT 13 REJECTED. PL. EN 17 P 8107 AND PRR 270. TEST SPECIMEN S.M 401-1830.  CETION-ADDITIONAL SAMPLES TAKEN FROM LOT AND SAMSCTED TO LIFE CYCLING TEST ALL FAILED. THE PRESENT TEST METALS AND TRANSPORTER CYCLING.  WEANIER PLOM LINITER VALVE BT-04200-3 B-04421 BOARD TEST ALL FAILED. THE PRESENT TEST WANTER PLOM LINITER VALVE BT-04200-3 B-04421 BOARD TEST ALL FAILED. THE PRESENT TEST METALS DATE TO THE METAL BANK CHARMS AND SAMSCTED TO THE RETIEM SAMS SAMS BEST BANK CRACAS METALS LINEAR AND PROCEDURE ARE SELIK REVISED ONE TO INFOQUER CYCLING.  LOT 18 REJECTED. METER TO PROPE AND STREET TO LIFE CYCLING TEST. ALL FAILED. THE PRESENT AND PROCEDURE ARE SELIK REVISED ONE TO INFOQUER CYCLING.  LUCION-SOOR WAS INFORMED TO INSPECT FLEX MORE TENCH LINEAR FOR INFERFECTIONS WHICH RESULTED IN LEAKAS ACTION-VENDOR WAS INFORMED TO INSPECT FLEX MORE TENCH LINEAR FOR INFERFECTIONS WHICH RESULTED IN LEAKAS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | "YDGAULIC-A/B<br>BUSTAINER/YERNIER                                   | ETAISOT<br>VERNIER PLOM LINITER VALVE                                                                             | UTP-PET<br>27-04200-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 137679                  | 3/ <b>09</b>          | YES STERER<br>NO 15000         |                                           | 10011 |
| NOCEDUMES ARE BEING REVISED DUE TO INPROPER CYCLING.  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27.53507  27 | FAILURE MODE-STRUCTUR<br>RE MOTED IN SPECIMEN.                       | AAL. LEAKAGE NOTED CONING PRON BPECII<br>LOT 13 REJECTED, RL.ER TO F BLOT AM                                      | HEM WALLS DURING 200<br>D FRM 270. TEST SPECI                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | HOUR P.E.T.             | . LIFE TE             | BT. SOMLE CRA                  | \$ .                                      |       |
| HER VERNIER PLOW LINITER VALVE 87-04808-1 060481 06/C VEB DIERER  1-STRUCTURAL: CAUSED LEAK COMING PROM BACKINEN MALLS DURING EDO HM. P.E.T. LIFE 1887. BMAL CRACKS MERE  1-STRUCTURAL: CAUSED LEAK COMING PROM BACKINEN MALLS DURING 200 HM. P.E.T. LIFE 1887. BMAL CRACKS MERE  1-STRUCTURAL: CAUSED LEAK COMING PROM LOT AND BAGLECTED TO LIFE CYCLING TEST. ALL FAILED. THE PRESENT  AND PROCEDURE AND REVISED DUE TO INFEGURE CYCLING.  1-STRUCTURAL: CAUSED MERE TAKEN FROM LOT AND BAGLECTED TO LIFE CYCLING TEST. ALL FAILED. THE PRESENT  1-STRUCTURAL: CAUSED MERE TAKEN FROM LOT AND BAGLECTED TO LIFE CYCLING TEST. ALL FAILED. THE PRESENT  1-STRUCTURAL: CAUSED MERE TAKEN FROM LOT AND BAGLECTED TO LIFE CYCLING TEST. ALL FAILED. THE PRESENT  1-STRUCTURAL: CAUSED MERE TAKEN FROM LOT AND BAGLECTED TO LIFE CYCLING TEST. ALL FAILED. THE PRESENT  1-STRUCTURAL: CAUSED MERE TAKEN FROM LOT AND BAGLECTED TO LIFE CYCLING TEST. ALL FAILED. THE PRESENT  1-STRUCTURAL: CAUSED MERE TAKEN FROM LOT AND BAGLECTED TO LIFE CYCLING TEST. ALL FAILED. THE PRESENT  1-STRUCTURAL: CAUSED MERE TAKEN FROM LOT AND BAGLECTED TO LIFE CYCLING TEST. ALL FAILED. THE PRESENT  1-STRUCTURAL: CAUSED MERE TAKEN FROM TO THE CYCLING TO THE CYCLING TEST. ALL FAILED. THE PRESENT THE CYCLING TEST. ALL FAILED. THE PRESENT THE CYCLING TEST. ALL FAILED. THE PRESENT THE CYCLING TEST. ALL FAILED. THE PRESENT THE CYCLING TEST. ALL FAILED. THE PRESENT THE CYCLING TEST. ALL FAILED. THE PRESENT THE CYCLING TEST. ALL FAILED. THE PRESENT THE CYCLING TEST. ALL FAILED. THE CAUSE THE CYCLING TEST. ALL FAILED. THE CYCLING TEST. ALL FAILED. THE CYCLING TEST. ALL FAILED. THE CYCLING TEST. ALL FAILED. THE CYCLING TEST. ALL FAILED. THE CYCLING TEST. ALL FAILED. THE CYCLING TEST. ALL FAILED. THE CYCLING TEST. ALL FAILED. THE CYCLING TEST. ALL FAILED. THE CYCLING TEST. ALL FAILED. THE CYCLING TEST. ALL FAILED. THE CYCLING TEST. ALL FAILED. THE CYCLING TEST. ALL FAILED. THE CYCLING TEST. ALL FAILED. THE CYCLING TEST. ALL FAILED. THE CYCLING TEST. ALL FAILED. THE CYCLING TEST. ALL FAILED. THE  |                                                                      | DITICUAL SAIPLES TAKEN PRON LOT AND SAKE BEING REVISED DUE TO INPROPER C                                          | MAJECTED TO LIFE CY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | A.1146 TEST             | NEL PATE              | D. THE PRESEN                  | 1 1681                                    |       |
| INGERICATIONAL CAUSED LEAR COMING PROM SPECINEN WALLS DURING EDD MS. P.E.T. LIFE TEST. SMALL CRACAS MERE SINGH. LOT IS REJECTED. RETER TO FROS AND FRRETO. TEST SPECINEN S/M SOA-1832.  LU-SD-10-233F  WERE HERE SELIGE REVISED ONE TO INFROMER CYCLING.  LU-SD-10-233F  HER HERBALL-STEADY DAIP OF HYDRAULIC PLUID BURING PRESSURE CHECK.  LU-SD-10-235F  ROOMERS ARE SELIME REVISED ONE TO INFROMER CYCLING.  LU-SD-10-235F  ROOMERS ARE SELIME REVISED ONE TO INFROMER CYCLING.  LU-SD-10-235F  ROOMERS ARE SELIME REVISED ONE TO INFROMER CYCLING.  LU-SD-10-235F  ROOMERS ARE SELIME REVISED ONE TO INFROMER TECTON LINEAR POR INFRAFECTIONS WHICH RESULTED IN LEARNS  COTTON-VENCOR WAS INFORMED TO INSPECT PLEX HOSE TECTON LINEAR POR INFRAFECTIONS WHICH RESULTED IN LEARNS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | HYDRAULIC-A/B<br>BUSTAINER/VERHIER                                   | ETASSET PLOF LIMITER VALVE                                                                                        | UTP-PET<br>87-04806-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Hotel                   | 3/ <b>9</b>           | VEB BTERER<br>NO 13000         |                                           | 999   |
| AND PROCEDURE ARE BEING REVISED DUE TO INFROME LOT AND BUBJECTED TO LIFE CTCLING TEST, ALL FAILED. THE PRESENT AND PROCEDURE ARE BEING REVISED DUE TO INFROMER CYCLING.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | PAILUME MODE-STRUCTUM<br>MOTED IN SPECIMEN. LOT                      | AAL. CAUSED LEAK COMING PROM BPECINES<br>I 18 NEJECTED, NEPER TO F1096 AND PRI                                    | N WALLS DURING 200 ME<br>1270, 1287 SPECIMEN I                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 1. P.E.T. E             | 1697.                 | BOALL CRACKS                   | ğ                                         |       |
| LY-98-10-233F FAR 8550 FACTORY VES AESISTOTIEN HIDRALLIC MOME R7-08582-3 840420 MO R21328-3 E-LEAK EXTERNAL-STEADY DRIP OF MYDRALLIC FLUID BURING PRESSURE CHECK.  LCTION-VENCOR WAS INFORMED TO INSPECT FLEE MOME TEFLON LINEAR FOR INPERFECTIONS MAICH RESALTED IN LEAKAS.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | CORECTIVE ACTION-ADD                                                 | DITIONAL JANPLES NERE TAKEN FROM LOT<br>EDURE ARE BEING REVISED DUE TO INPRO                                      | AND BUBJECTED TO LII<br>PER CYCLING.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | T CYCLING               | TEBT. ALL             | FAILED. THE                    | Patada                                    |       |
| AILUME MOCE-I                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 7                                                                    | .V-98-10-233F<br>HTDRAULIC MOSE                                                                                   | FAR<br>87-06568-3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 1530<br>6404g0          | FACTORY               | VES AES18TOF<br>NO RE13E8-8    | <b>3</b>                                  | •     |
| ORRECTIVE ACT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | FAILURE MOE-LEAK EXT                                                 | TERNAL-STEADY DRIP OF MYDRAULIC PLUI                                                                              | D DURING PRESSURE CH                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | ica.                    |                       |                                |                                           |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | OMRECTIVE AC                                                         | WOOR WAS INFORMED TO INSPECT PLEX HO                                                                              | SE TEPLOM LINEAR FOR                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | INCAPECTI               | OIM ENG               | RESULTED IN                    | LEAKAG                                    |       |

FAILURE MODE-OUT OF TOLERANCE. BURING PERFORMANCE TESTS THE UNIT FAILED TO RESULATE THE PLUID BELIVERY FROM FULL FL. OW TO ZEAD FLOW IN THE AEGUINED TIME OF 8.88 SEC. THE ACTUAL TIMES VARIED BETWEEN 8.870 TO 8.880 SEC. REF FPR MR 487

CONVAIR YES VICKERS NO AA-60410-L-E

: 55

UTP-P4T B7-0850-8

HYDRAULIC-A/B BUBTAINER/VERNIER

GENERAL BYNANICS CONVAIR BIVISION DIFFICULTIES REVIEW-HYDRAULIC SYSTEM-AIRSORNE

9981 MAT 81

| DIF DATA BOUNCE VEHICLE SITE PRI VENDOR MANE PART NUMBER DATE DIF TINE DIF OTH VENDOR PART NO | ON-TEST CONTINUED. PUMP CAN NOT PASS THE TESTS USING THE PRESENT PUMP SPECIFICATION TRANSIENT RESPONDANCE. FR. FR. 854-2-244 FR. 634-2-428 SCN NO. 14170 CANNGES THE PUMP REQUIREMENTS. | 640418 60/C YES LIGHEL PACIFIC 696647                                                                           | HIERNAL LEARAGE-MHILE PHEPARING TO RUM THE SINE/RANDOM VIBRATION ON THE UNIT IN THE Z-AXIS UNIT FAILE<br>AN ELECTRICAL INPUT SIGNAL, THIS WAS CAUSED BY THE BY PASS CRIFICE PLUG IN THE PISTON CONFLETLY SAC<br>S NOTED THAT THE VEHOCR NYLON LOCK WAS MISSING FROM THE PLUG. REF. FPR MR F-4258 ST S/N 303-0646.                                               | US IN THE PISTON AND STATING IT IN. TEST CONTI-<br>TORBUE AND A BOTTONING TORBUE OF 100 INV.B. TO<br>DOR IAT BATA REPORT AND ACKNONLEDGED ST GO/C O                                                                                                                                                                                                                                               | FAR 75F FACTORY VES CIRCLE SEAL 090857<br>RT-04568-1C 640418 MO P3-319 | ED BY A MIBBING GABET. DURING O-RING REPLACE:                                                                                                                                 | ICH-COFINED. SHOP PERSONNEL HERE REGUESTED TO DISASSEMBLE CHECK VALVES CHLY IN THE CLEAN ROOM AND W |
|-----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| SUB-SYSTEM TEST/REPORT NUMBER<br>SUB-SYSTEM FAILED COMPONENT NAME                             |                                                                                                                                                                                         | HTDRAULIC-A/B 69A1950.E UTP-ETT<br>SUSTAINER/YERHIER SUSTAINER ACTUATOR ABBEMBLY, ORIFI ET-85314-017<br>CE PLUG | FAILURE MODE-IMFERMAL LEARAGE-MAILE PREPARING TO RUM THE SINE/RANDOM VIBRATION ON THE UNIT IN THE 2-AXIS UNIT FAILE<br>D TO RESPOND TO AN ELECTRICAL IMPUT SIGNAL. THIS MAS CAUSED BY THE BY PASS CRIPICE PLUG IN THE PISTOM COMPLETELY SAC<br>RIMG OUT. IT MAS NOTED THAT THE WENDCA NYLON LOCK WAS MISSIMG FROM THE PLUG. REP. FPR NR F-4236 ST 8/N 303-0846. | CORRECTIVE ACTION-THE, UNIT WAS REPAIRED BY REINSERTING THE ORIFICE PLUG IN THE PISTON AND STAKING IT IN, TEST CONTI<br>MED. THE VENOR WILL TORGUE THE PLUG TO A MINIMAM OF 4 INCLB RUNNING TORGUE AND A BOTTONING TORGUE OF 100 INCLB. TO<br>ROUE VERFICATION SHALL BE STANFED BY THE VENDOR INSPECTION ON THE VENDOR LAT BATA REPORT AND ACRNOMAEDGED BY GO/C O<br>PI. REF. FREE R 854-2-247 A. | HTD4AULIC-A/8 A-A8-08-3181F<br>SUSTAINER/YERNIER CHECK VALVE, O-RING   | FAILUME MODE-EXTERNAL LEAKAGE. A LEAK OF 150 C.C. PER MINUTE WAS CAUSED BY A MIBBING GARKET. DURING O-RING REPLACE:)<br>Ent the gasket was erromiously oritied at Reassembly. | CORRECTIVE ACTION-CONFIRMED. SHOP PERSONNEL MERE REQUESTED TO DISASSEMBLE CHECK VALVES ONLY IN THE  |

FAILURE MODE-STRICTURAL-AT THE COMPLETION OF SINEZRANDOM VIBRATION IN Y-AXIS, THE ACTUATOR BODY WAS POUND TO MAVE R. OTATED ABOUT THE ROD ENDS. THIS WAS CAUSED BY A LODGE GLAND LOCKPIT, REF. B/N 308-0848.

TES LIGHEL PACIFIC 000000

Š

**4**0414

UTP-ETT 27-05314-017

COATOSOLE BUSTAINER ACTUATOR ASST

HYDRAULIC-A/B BUSTAINER/VERNIER CORRECTIVE ACTION-REALISM THE ACTUATOR BODY MITH THE ACTUATOR ROD ENDS AND RETORBUE THE GLAND END LOCAMUT TO 100 PT

CONTAIN BIVISION

18 JUN 1886

|                                                 | DIFFICULTIES REVIEW-HYDRAULIC STSTEM-AIRBOAME                                                                                                                                                                                         | AULIC SYSTEM-AIRBON                        | ¥                                 |                                |            |                                 | 1                                       |
|-------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|-----------------------------------|--------------------------------|------------|---------------------------------|-----------------------------------------|
| 2121EX<br>200-2121EX                            | TESTARFORT NUMBER<br>FAILED COMPONENT NAME                                                                                                                                                                                            | DIF DATA SOURCE<br>PART NUMBER             | VEHICLE BITE<br>DATE BIF TIME BIF | 811E<br>TIME 01F               | - N - O    | VENDOR NAME<br>VENDOR PART NO   | <del></del>                             |
| HYDRAULIC-A/B<br>BUSTAINER/VERNIER              | SUSTAINER ACTUATOR ABBT.                                                                                                                                                                                                              | UTP-ETT<br>ET-65514-617                    | *17070                            | <b>60</b> /C                   | 2 0        | TES LICHEL PACIFIC              | :                                       |
| FAILURE MODE-STRUCTUR<br>TATED ABOUT THE RGD EN | FAILUME MODE-STRUCTURAL—AT THE COMPLETION OF BINE/RANDON VIBRATION IN T-AKIB THE ACTUATOR BODY MAS FOUND TO MAVE RO<br>Tated about the Rod Ends. This was caused by a loose gland lock mut. Ref. 8/M 305-0055.                        | BRATION IN Y-AKIS I<br>CCK NUI. REF. S/N 3 | ME ACTUATO<br>05-0851.            | 3 A90 W                        | 2          | UNED TO HAVE RO                 | ·                                       |
| CORECTIVE ACTION-REA                            | CORECTIVE ACTION-REALISM THE ACTUATOR BODY WITH THE ACTUATOR ROD ENDS AND RETORBUE THE GLANG END LOCKNUT TO 103 FT<br>LBS. CONTINGE TEST.                                                                                             | OR ROD ENDS AND RET                        | Cheur The                         | GLANG EN                       | ğ          | KIWUT TO 103 FT                 | <del></del>                             |
| MTJAALIC-A/B<br>BUSTAINER/VERNIER               | 6941850.E<br>SUSTAINER ACTUATOR ASST.                                                                                                                                                                                                 | UIP-ETT<br>27-05514-617                    | *1007                             | 3                              | 20         | YES LIGHEL PACIFIC              | :                                       |
| FAILURE HODE-STRUCTUR<br>OD ENDS. THIS MAS CAUS | FAILURE HODE-STRUKTURAL-DURING EQUALIZING FOR PRT RANDON VIBRATION IN K-AXIS, THE ACTUATOR BOOV ROTATED ABOUT THE DE HOSS. THIS MAS CAUSED BY A LODGE GLAND LUCKRUT, REF. B/N 305-0649.                                               | BRATION IN X-AXIS:<br>SOS-0648.            | THE ACTUAL                        | 90 B007                        | POTAT      | ED ABOUT YHE R                  |                                         |
| CORRECTIVE ACTION-REA                           | CORRECTIVE ACTION-REALISM THE ACTUATOR BOOT WITH THE ACTUATOR BOO ENDS AND RETORAGE THE GLAND END LOCKBUT TO 100 PT                                                                                                                   | CA NOD ENDS AND NET                        | CREALE THE                        | GLAND EM                       | 8          | KHUT TO 100 FT                  |                                         |
| HTDRAULIC-A/E<br>SISTAINER/VERNIER              | 4991905.1<br>HTDRAULIC FLEX MOSE ABSY.                                                                                                                                                                                                | U1P-PRT<br>R7-06571-45                     | *1000                             | OTHER                          | <b>2</b> 0 | YES AERCQUIP<br>NO 67725-6-016. | *************************************** |
| FAILURE HODE-STRUCTUR<br>MERE DISTORIED. THE HO | FAILURE HODE-BIRUCTURAL-AT THE CONCLUBION OF THE OPERATING PRESSURE CYCLES IT WAS NOTED THAT BOTH ENDS OF THE HOME<br>NEWE DIBTORIED. THE HOSE WAS SUCLEM APPROXIMATELY B/A INCH PROM EITHER END. REF. FPR MR F-4235 BT B/N 109-1247. | MESSURE CYCLES IT<br>FROM EITHER END. ME   | F. FPR MA                         | THAT BOT                       |            | \$ 07 14E MOSE<br>\$08-1247.    |                                         |
| CORRECTIVE ACTION-NON                           | CCARECTIVE ACTION-NOME-THE UNIT MITHSTOOD A PROOF PRESSURE OF 6000 PSIG WITH 275 DEGREE F. OIL WITHOUT LEAKING.                                                                                                                       | OF 6000 PSIG MITH E                        | 75 DECMEE                         | F. OIL W                       | <u>ş</u>   | T LEAKING.                      |                                         |
| MTDRAULIC-A/B<br>BUSTAINER/VERMIER              | LV-80-10-248-F<br>CMECK VALVE                                                                                                                                                                                                         | FAR<br>87-08363-8                          | 3110<br>64049                     | CONFLEXE YES ACHLER NO MIE47-1 | ž 0        | 404LEA<br>41247-6               | ***                                     |
| "AILUME MODE-LEAK INT                           | TAILUAE MODE-LEAR INTERNAL, POBSIBLE CAUSED BY HARD CONTANTHANTS THIT MELD THE VALVE POPPET OPEN AND HICKED THE BEA                                                                                                                   | MANTO THIS MELD THE                        | . VALVE PO                        | #E1 09EN                       | 9          | NICAED THE BEN                  |                                         |
| CORRECTIVE ACTION-VAI                           | CORRECTIVE ACTION-FAILURE NOT COMPIRMED. CONTAMINANT PARTICLES NERE WITMEN SPECIFICATION LIMITS. NO FURIMER ACTION.                                                                                                                   | LES NERE VITHIN SPI                        | CIFICATION                        | . LIMITS.                      | ç          | VRIMER ACTION.                  |                                         |
|                                                 |                                                                                                                                                                                                                                       |                                            |                                   |                                |            |                                 | _                                       |

GENERAL BYNAHICS CONVAIR BIVIBION

| ***************************************                                    | CONVAIR BIVISION BIFFICULTIES REVIEW-HYDRAULIC STITEM-AIRBORNE                                                                                                                                                                                                                                                                                                        | CONVAIR DIVIDION<br>EVIEW-HYDRAULIC BY    | 1 EH-A I RBOR                            | Ā                                       |                      |                |                                                  |                                                  |
|----------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|------------------------------------------|-----------------------------------------|----------------------|----------------|--------------------------------------------------|--------------------------------------------------|
| SUB-STER                                                                   | TESTARFORT NUMBER<br>FALLED COMPONENT NAME                                                                                                                                                                                                                                                                                                                            | DIF DA                                    | A BOURCE<br>NUMBER                       | VEHICLE<br>DATE DIF                     | 11 TE 017            |                | PRI VENDOR MANE<br>OTH VENDOR PART NO            |                                                  |
| HTDRAULIC-A/B<br>BUSTAINER/YERNIER                                         | LV-80-04-4768F<br>ACTUATOR ASSEMBLY, O-REMS SEALS                                                                                                                                                                                                                                                                                                                     | FAR<br>27-6551 -608                       |                                          | 1100                                    | MT.                  | <b>1</b> 8     | TES LIGHEL PACIFIC 889548                        | :                                                |
| FAILURE MODE-CONTAR<br>UNDER STATIC CONDIT<br>SPECIFICATION LEARAR         | FAILURE MODE-CONTANIMATION-D'RING SURVEILLANCE INSPECTION OF THE NISSILE, LEAKAGE IN EXCESS OF ONE BROP IN 24 HOURS<br>Under Static Comditions has moted. Pailure has due to small particlis of contaninates on the O-ring causing out of<br>Specification Leakase that has insignificant.                                                                            | A OF THE ME.                              | BILE, LEAR                               | abe in exc<br>Minates of                | 188 OF 0             | ¥ 3            | P IN E4 HOURS                                    |                                                  |
| CORRECTIVE ACTION-WEAR 185UED TO L.<br>2575EA REQUIREMENTS. 850D MAS 187D. | ACTION-VCAR 135UED TO LIGHEL PACIFIC TO ENSURE THAT O-RIMS INSTALLATIONS HEET 60/C, NG-28773, AND HIL-P-                                                                                                                                                                                                                                                              | THAT O-RII                                | 6 1167ALL                                | TIONS NEET                              | 80/c. #              | -              | 9. AND MIL-P-                                    | ·                                                |
| HYDRAULIC-A/B<br>SUSTAINER/VERNIER                                         | 22H64-014/DA1008/L3-4H0-01-351<br>CHECK VALVE                                                                                                                                                                                                                                                                                                                         | COMPOSE YE-<br>87-08560-5                 | COMPOST YE-FRO/DPL<br>E7-06560-9         | 1510<br>640404                          | :                    | 5 3            | YES KONLER<br>NO K-1247-6                        | 9110                                             |
| FAILURE MODE-LEAK,<br>ALLOWING MYDRAULIC F                                 | FAILURE MOE-LEAK; INTERNAL. THE CHECK VALVE WICH IBOLATES THE VERNIER SOLO ACCUMILATOR FRON THE MPU MAS LEAKING;<br>ALLOMING HIDRAULIC FLUID TO ENTER THE VERNIER SOLO ACCUMILATOR.                                                                                                                                                                                   | IES THE VERI                              | 4ER 80.0 A                               | CCUMULATOR                              | 7 ST                 | Ĭ              | MA LEAKING,                                      |                                                  |
| SYSTEM EFFECT-ERRAT                                                        | ERRATIC OPERATION-ABNORMAL PRESSURE DECAY WAS NOTED AFTER HPU SMUTDOMA.                                                                                                                                                                                                                                                                                               | 48 NOTED A                                | TER HPU B                                | NTDOM.                                  |                      |                |                                                  |                                                  |
| VEHICLE EFFECT-COUR                                                        | -COUNTDOMN DELATED.                                                                                                                                                                                                                                                                                                                                                   |                                           |                                          |                                         |                      |                |                                                  |                                                  |
| CORRECTIVE ACTION-1                                                        | CORRECTIVE ACTION-THE CHECK VALVE WAS REPLACED AND A HYDRAULIC FILL AND BLEED PERFONED                                                                                                                                                                                                                                                                                | IAM.IC FILL                               | AND BLEED                                | PERFORED.                               |                      |                |                                                  |                                                  |
| HTDRAULIC-A/B<br>BUSTAINER/VERNIER                                         | LY-AS-04-4785F<br>SUSIAINER ACTUATOR ASSEMBLY, SERVO E7-83314-819<br>Valve                                                                                                                                                                                                                                                                                            | FAR<br>1VO E7-85314                       | <b>910</b> -1                            | 1960                                    | FACTORY              | Ş g            | VES LIGHEL PACIFIC                               | :                                                |
| FAILURE MODE-OUT OF<br>ACK VOLTAGES MERE PL<br>AILURE NAS DUE TO TH        | FAILURE MODE-OUT OF TOLERANCE-DURING FINAL ACCEPTANCE CHECKOUT THE ACTUATOR ABBENBLY ACTIVE, AND INACTIVE MULL FEEDB<br>ACK VOLIAGES MERE PLUS 0.405 YOLT AND PLUS 0.375 YOLT. MAXIMUM SPECIFICATION LIMITS ARE 0.400 VOLT AND 0.350 VOLT. F<br>AILURE WAS DUE TO THE INCOMPATIBILITY OF THE IOC TEST EBUIPMENT BERNO AMPLIFIERS TO ADJUST THE AIG BERNO ABSENBLIES." | CROUT THE /<br>CIMUM SPECII<br>PMENT MERW | ICTUATOR AS<br>TCATION LI<br>S AMPLIFIED | SEMBLY ACT<br>HITS ARE D<br>IS TO ADJUN | 1 VE AND .400 VOL.   | T AND<br>T AND | WE MULL FEEDS<br>0.350 VOLT. F<br>NO ABSENSLIES. |                                                  |
| CORRECTIVE ACTION-6D/<br>ES AND SPACE BOOSTERS.                            | 1004-60/C REDEBIGNED THE TEST ERVIPMENT TO INCLUDE AIS TYPE SERVO AMPLIFIEMS USED ON NOST ATLAS MISSIL<br>Obsers.                                                                                                                                                                                                                                                     | INCLUDE ATS                               | TVPE BERUG                               | ANDLIFIE                                | 0 9385               | 8              | ATLAS MISSIL                                     |                                                  |
| MYDRAULIC-K/B<br>BUSTAINER/VERNIER                                         | BLV-AP-04-4736F<br>SUSTAINER ACTUATOR ASSENSEY                                                                                                                                                                                                                                                                                                                        | FAR<br>27-65514-617                       | -617                                     | 7101                                    | FACTORY              | 88             | LIONEL PACIFIC                                   | <del>                                     </del> |
| FAILURE MODE-OUT OF<br>E TEST CONSOLES INAB<br>AM AIG AMPLIFIER, BU        | FAILUME MODE-OUT OF TOLERANCE, UNIT REJECTED FOR EXCESSIVE INACTIVE MULL PEEDBACK VOLTAGE, FAILUME ATTRIBUTED TO TH<br>: Test compoles imability to combuct tests using either an als on am loc type agrygamplifier, the unit pailed using<br>Im als amplifier, but passed using am loc type amplifier.                                                               | ME INACTIVE<br>N A16 OR AN                | HULL PEEDS<br>10C 17PE 1                 | ACK VOLTAS                              | E. Pairu<br>IER. 14E |                | FAILED TO THE                                    |                                                  |

GENERAL BYNAHICS CONVAIR BIVISION

4

•

| SUB-STSTEN  SUB-STSTEN  TIVE ACTION-REDESIGN OF TH  C-A/B  R/VENIER  E MODE-DURING PET TEST-PRO  CLUKED 64/4/14. TEST SPECIA                                                                                                                                                                                      | SUB-STREET TERITORY RELIED COMPONENT NAME PART NUMBER DATE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIF THE DIFT THE DIFT THE DIFT THE DIFT THE DIFT THE DIFT THE DIFT THE DIFT THE DIFT THE DIFT THE DIFT THE DIFT THE DIFT THE DIFT THE DIFT THE DIFT THE DIFT THE DIFT THE DIFT THE DIFT THE DIFT THE DIFT THE DIFT THE DIFT THE DIFT THE DIFT THE DIFT THE DIFT THE DIFT THE DIFT THE DIFT THE DIFT THE DIFT THE DIFT THE DIFT THE DIFT THE DIFT THE DIFT THE DIFT THE DIFT THE DIFT THE DIFT THE DIFT THE DIFT THE DIFT THE DIFT THE DIFT THE DIFT THE DIFT THE DIFT THE DIFT THE DIFT THE DIFT THE DIFT THE DIFT THE DIFT THE DIFT THE DIFT THE DIFT THE DIFT THE DIFT THE DIFT T | DIF DATA BOUNCE<br>PART NUMBER<br>TE EITHER TYPE ANDL.<br>UTP-PET<br>E7-04E11-1 | DATE OF                                | 3116<br>3146 017                   | 25     |                                             |                                         |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|----------------------------------------|------------------------------------|--------|---------------------------------------------|-----------------------------------------|
| CTIVE ACTION-REDESIGN OF THE ICA / B RASASI RAVENIER PEEDBANKE PEEDBANKE PET TEST-PROCECUREED 64/4/14. TEST SPEC                                                                                                                                                                                                  | IE TEST CONSOLE TO ACCOMMODING THE TEST COMMECTOR OF CYCLES B AT 500 DEMERS INEN S/MOS-1/501 LOT 29. R                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | UTP-PET<br>87-04811-1                                                           | IFIER MA                               |                                    | _      | SITE FRE VENDOR NAME                        |                                         |
| SUSTAINER/VERNIER PEEDBAR<br>FAILURE MOE-DURING PET TEST-PRI<br>LUME OCCUBRED 64/4/14. TEST SPEC                                                                                                                                                                                                                  | TRANSDUCER, COMECTOR OF CYCLES B AT 300 DEGREES INEM 3/MAG1-1760; LOT ES: R ATE TEST COMECTOR WAS REA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | UTP-PET<br>87-04811-1                                                           |                                        | IKI TI A TEG                       | ء ا    |                                             | *****                                   |
| FAILUGE MODE-DUAING PET TEST-PROOF CYCLES B AT 500 DEGREES F TRANSDUCER CUTPUT JUNFED TO 4.5 VOLTS RMS. SIMILAR FAI<br>Lume occupred 547414. Test specimem 87M401-1760; Lot es, refer to par 320.                                                                                                                 | OF CYCLES B AT 500 DEGREES INEM S/MOS-1760. LOT ES. R.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                 | <b>3</b> 070 <b>7</b>                  | o è                                | 88     | CRESCENT<br>MC-877-4E                       | • 7 2 7 4                               |
|                                                                                                                                                                                                                                                                                                                   | MIE TEBT COMMECTOR WAS REA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | F TRANSDUCEN OUTPUT<br>FFER TO FRR 3EG.                                         | TOTAL TO                               | 4.5 VOL.                           | 2      | D. BINILAR PAI                              |                                         |
| CORRECTIVE ACTION-USE OF INADER                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | KN FOR FAILURE AT S                                                             | 00 DECEE                               | F. 1681                            | 202    | EDUNE CONNECTE                              |                                         |
| HTDRAULIC-A/B<br>BUSTAIMER/VERMIER ACTUATI                                                                                                                                                                                                                                                                        | LV-AS-04-4750-C<br>ACTUATOR ASSENGAT, BERNO VALVE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | FAR<br>27-63312-606                                                             | 1 8 5 D<br>64 0 4 0 E                  | FACTORY                            | . Q    | VES LIGHEL PACIFIC                          | *************************************** |
| FAILURE MODE-OUT OF TOLERANCE-DURING A PLIGHT CONTROL SYSTEMS CHECKOUT THE WERNIER YAW SERVOCTLINDS<br>FEEDBACK VOLTAGE EXCIEDED THE SPECIFICATION LIMITS. VOLTAGE WAS 0.340 VOLT AS COMPARED TO THE MAXIM<br>1230 VOLTS. FAILURE DUE TO A LOOSE SERVOVALVE NOZZLE TARGET SCREW THAT MAS NOT STAKED MITH A SRAZE. | OF TOLERANCE-DURING A PLIGHT CONTROL SYSTEMS CHECKOUT THE WERNIER YAM SERVOCTLINDER ASSENBLY MALL<br>EXCEEDED THE SPECIFICATION LINITS. VOLTAGE WAS 0.340 VOLT AS COMPARED TO THE MAXIMUM ALLOMBLE OF A<br>RE DUE TO A LOOSE SERVOVALVE NDZZLE TARGET SCREW THAT WAS NOT STAKED MITH A BRAZE.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | ENS CHECKOUT THE WENT<br>NAS 0.540 WOLT AS C<br>SCREW THAT WAS MOT              | MIER YAN B<br>CHERRED TO<br>RTAKED WIT | ERVOCTLIS<br>THE MAXI<br>H A BRAZE | 5.5    | ASSEMBLY MALL<br>ALLOMBLE OF 0              |                                         |
| COMMECTIVE ACTION-CADILLAC GACE IMPROVED ABSEMBLY AND INSPECTION PROCEDUARS TO ABBURE TARGET SCREMS ARE PROPERLY AN<br>D SECUMELY BHAZED. GOVE SURVEYED ALL CADILLAC GAGE MERNO VALVES AND INSPECTED THEM FOR PROPERLY MECURED CONTROL MORE<br>EL TARGET SCREMS.                                                  | CADILLAC GAGE IMPROVED ASSEMBLY AND INSP<br>60/C SURVEYED ALL CADILLAC 64GE BERWO VA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | AND INSPECTION PROCEDUALS TO ASSURE<br>MERNO VALVES AND INSPECTED THEM FOR      | ASSURE TA                              | ACET SCAL                          | IN A I | TAREET SCHEMB ARE PROPERLY AN PROPERLY MOEE |                                         |
| HIDGALL IC-A/8 LV-99-<br>BUSTAINER/VERNIER BUSTAI                                                                                                                                                                                                                                                                 | LV-89-10-244-F<br>BUSTAINER HYDRAULIC TANK                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | FAR<br>27-06552-5                                                               | 1810                                   | FACTORY                            | 5 0    | 7ES BENBOW HFG. ON                          | •                                       |
| FAILUGE MODE-LEAK EXTERNAL, LEA<br>ERNIMED,                                                                                                                                                                                                                                                                       | EXTERNAL. LEAK REPORTED WEN TAIK WAS PRESSURITED TO SO PSIS. CAUSE AND SOURCE OF LEAKASE MOT DET                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 188-M125D TO 80 P816                                                            | . CAURE AN                             | D BOUNCE                           | 5<br>8 | EARAGE MOT DET                              |                                         |
| CORRECTIVE ACTION-FAILURE NOT CONFIRMED.                                                                                                                                                                                                                                                                          | DAFTRACED. NO PURTHER ACTION.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                 |                                        | -                                  |        |                                             |                                         |
| MYDRALLIC-A/B 6001017.5                                                                                                                                                                                                                                                                                           | SPEISIT.1<br>HYDRAULIC FLEH HOSE ABBY.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | C19-751<br>67-00071-8                                                           | 140331                                 | 01 MER                             | 5 8    | TES AEROGULP<br>NO 677341-6-0215            | •• 7035                                 |

FAILUME WINE-BTAUCTURAL-DURING THE OVERTORBUE TEBT: THE UNIT FAILED WHEN THE PLANGE EXPANDED BENEATH THE B MUT AND PREVIOUED THE NUT AND PREVIOUS THE STATES AFFICATIONS. RES. IS IS MIN. REP. FPR NR P-4210 BT SZN KOB-1770.

CORRECTIVE ACTION-TEST TERMINATED. MOSE REPLACED AND TEST RERUN.

GENERAL DYNAMICS CONVAIR DIVISION

19 10H 1966

|                                                                                      | DIFFICULTIES REVIEW-HYDRAULIC STSTEM-AIRBORNE                                                                                                                                                                                                                                                                       | AULIC STSTEM-AIRBORI                                                 | 4                                    |                                     |              |                                            |                                                   |
|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|--------------------------------------|-------------------------------------|--------------|--------------------------------------------|---------------------------------------------------|
| 8727EM<br>846-3747EM                                                                 | TEST/REPORT NUMBER<br>FAILED COMPONENT N'ME                                                                                                                                                                                                                                                                         | DIF DATA BOURCE<br>PART NUMBER                                       | WEMICLE<br>DATE CIF                  | VEHICLE BITE<br>DATE CIF TIME DIF   | # 5<br># 5   | PRI VENDOR NAME<br>OTH VENDOR PART NO      |                                                   |
| <br>HYDRAULIC-A/B<br>TUSTAINER/VERNIER                                               | CT-88-04-168<br>ACTUATOR ASSEMBLY O-RIMS                                                                                                                                                                                                                                                                            | FAR<br>27-85314-819                                                  | 1380<br>6403£7                       | 40.                                 | 10 E         | TES LIGHELPACIFIC                          | • 17.11                                           |
| <br>FAILURE MODE-EXTERNAL LE<br>THE FAILURE MAS CONFIRME<br>SPECIFICATION REGUIREMEN | XIERNAL LEAK. THE FORMAND BEAL OF THE ACTUATOR WAS FOUND TO BE LEAKING 20 DROPS PER HOUR AT 100 PSIG.<br>S CONFIRMED AND WAS CAUSED BY A DEFECTIVE FORWARD-END STATIC O-RING. THE O-RING WAS FOUND TO BE BELOW<br>REQUINEMENTS OF MIL-P-ESTREA AND IT SHOWED BUMFACE ABRASION CAUSED BEFORE OR DURING INSTALLATION. | R WAS FOUND TO BE LI<br>WARD-END STATIC O-R!<br>RFACE ABRASION CAUSE | LAKING ED<br>ING. THE C<br>ED BEFORE | DROPS PER<br>PRING MAS<br>OR DURING | FOUR<br>TEST | AT 100 PSIG.<br>) TO BE BELOW<br>ALLATION. |                                                   |
| <br>CORRECTIVE ACTION-CORREC<br>RE ACTUATORS, REF. RAR A-                            | CORRECTIVE ACTION-CORRECTIVE ACTION HAS BEEN TAKEN PRIOR TO THIS FAILURE WHICH WILL ELIMINATE THIS PROBLEM FOR FUTU<br>Re actuators. Ref. Rar a-as-04-3894 and rar a-80-04-3838. No further action is reguired.                                                                                                     | THIS FAILURE WHICH<br>FURTHER ACTION IS                              | WILL ELIP<br>PERUIRED.               | IMATE THE                           | <b>5</b>     | DLEA FOR PUTU                              |                                                   |
| HTDRAULIC-A/B<br>SUSTAINER/YERNIER                                                   | A-A9-04-4754-F<br>ACIUATOR                                                                                                                                                                                                                                                                                          | FAR<br>27-85312-805                                                  | 114-F<br>640324                      | FACTORY                             | 75.5         | YES LIGHEL PACIFIC<br>NO                   | į                                                 |
| FAILURE MODE-LEAX-EXTERN<br>TIME AT 3000PSIG MAILE AC                                | FAILURE MODE-LEAR-EXTERMAL. THE VERNIER SERVOCYLINDER WAS REJECTED DURING PINAL CHECKOUT DUE TO LEAKAGE WHILE OPERA<br>ING AT 3000PSIG WHILE ACTUATING THE VERNIER ENGINE. FAILURE COULD NOT BE CONFIRMED DURING PAILURE AMALYSIS.                                                                                  | EJECTED DURING FINAL                                                 | L CHECKOUT                           | DUE TO L                            | EAKAG        | E WILE OPERA<br>1818.                      | <del>, , , , , , , , , , , , , , , , , , , </del> |
| CORRECTIVE ACTION-NOME-F                                                             | CORRECTIVE ACTION-NOME-FAILUME CAUSE COULD NOT BE CONFIRMED.                                                                                                                                                                                                                                                        |                                                                      |                                      |                                     |              |                                            |                                                   |
| HYDRAULIC-A/B<br>BUSTAINER/VERNIER                                                   | A-AS-10-242-F<br>FLARED TUBE, CROSS                                                                                                                                                                                                                                                                                 | FAR<br>27-65337-9                                                    | 11.4F<br>84031E                      | FACTORY                             | 7E\$ 60/C    | ×                                          | ***************************************           |
| FAILURE MODE-LEAK EXTERN                                                             | FAILURE MODE-LEAK EXTERMAL-LEAK CAUSED BY MACROBCOPIC VOLDS IN THE PARENT MATERIAL.                                                                                                                                                                                                                                 | IN THE PARENT MATE                                                   | NA.                                  |                                     |              |                                            |                                                   |
| CORECTIVE ACTION-GD/C 1                                                              | CORRECTIVE ACTION-GO/C SPECIFIED SEI STAIMESS STEEL AND PRECLUDED FURTHER WEE OF 503 STAIMESS STEEL FOR FABRICATI<br>In of Future Parts.                                                                                                                                                                            | ECLUDED FURTHER WAS                                                  | 9 8 P                                | AIMESS S                            | TEEL         | FOR FABRICATI                              |                                                   |
| MYDRAULIC-A/B<br>BUBTAINER/VERNIER                                                   | 8eA1904.2<br>Puer                                                                                                                                                                                                                                                                                                   | UTP-ETT<br>27-08390-3                                                | <b>64</b> 0316                       | CONVAIR                             | 5 9          | VES VICKEAS<br>ND AA-60410-L-E             | 7007                                              |
| FAILURE MODE-OUT OF TOLE<br>O ZEAD FLOM IN THE REBUIN<br>AT REV A SAN BOB-0388.      | FAILURE MOE-OUT OF TOLERANCE, DURING PERFORMANCE TESTS THE UNIT FAILED TO REGULATE FLUID DELIVERY FROM FULL FLOW T<br>) zead flow in the reaured time of 0.03 bec. The actual times varied betheen 0.088 to 0.088 bec. Rep. FPR na P-Aeig<br>It rey a bin 308-0388.                                                 | UMIT FAILED TO MEG<br>ES VARIED SETNEEN D                            | MATE FLUI                            | D DELIVER<br>DOB SEC.               | 467.         | H FULL FLOW T                              |                                                   |
| <br>CORECTIVE ACTION-TEST C<br>E REGUIREMENTS, REF. FPR                              | CORECTIVE ACTION-TEST CONTINUED. PUMP CANNOT PASS THE TESTS USING THE PRESENT PUMP SPECIFICATION TRANSIENT RESPONS<br>: Reguirements, her, ppr Pr 654-8-8264, Pr 664-8-428, SCM MO.16170 CHANGES THE PUMP REQUIREMENTS.                                                                                             | S USING THE PRESENT<br>14170 CHANGES THE P                           | Pure april                           | IFICATION                           | TRAN         | BIENT RESPONS                              |                                                   |

GENERAL DYNAMICS CONVAIR DIVISION

13 10% 1966

4

| • |  |  |
|---|--|--|
| • |  |  |
|   |  |  |
| • |  |  |
|   |  |  |
|   |  |  |
|   |  |  |
|   |  |  |

|                                                                                         | DIFFICULTIES REVIEW-MYDRAULIC SVOTEN-AIRBORN                                                                                                                                                                                                                                               | PAULIC SYSTEM-AIRSON                                                               | VENTCLE               | 31.16                 | PRI VENDOR NAME                          |        |
|-----------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-----------------------|-----------------------|------------------------------------------|--------|
| 8181EH<br>818-8181EN                                                                    | FAILED COMPONENT MANE                                                                                                                                                                                                                                                                      | PART NUMBER                                                                        | 0A 7E 01F             | 11ME 01F              |                                          |        |
| HTDRAULIC-A/B<br>BUBTAINEA/VERNIER                                                      | A-88-04-4783F<br>VERNIER ACTUATOR ABBENGLY, O-RING                                                                                                                                                                                                                                         | 7AR<br>27-08874-805                                                                | 77E<br>940312         | FACTORY               | VES LIGHEL-PACIFIC                       | •••••  |
| FAILUME MODE-LEAR-EA                                                                    | FAILUME MODE-LEAR-EATERNAL. UNIT REJECTED FOM EXTERNAL LEARAGE. FAILUME ATTRIBUTED TO A DAMAGED TEFLOM BACKUP RIM6.                                                                                                                                                                        | IAGE. PAILUME ATTRIE                                                               | 101 <b>ED</b> TO A    | DAMAGED 18            | FLON BACKUP RING.                        |        |
| CCRECTIVE ACTION-VEND<br>R CARE DURING ASSEMBLY.                                        | CCARECTIVE ACTION-VENDOR HOTIFIED WHICH RESULTED IN ALEATING HIB PRODUCTION AND INDRECTION PERSONNEL TO TAKE GAEATE<br>Care during assembly.                                                                                                                                               | 46 HIS PRODUCTION AN                                                               | D IMPRECT             | ION PERSON            | EL TO TAKE GREATE                        |        |
| HTORAULIC-A/B<br>BUSTAINER/YE-MIER                                                      | LV-99-10-246-F<br>F1LTER                                                                                                                                                                                                                                                                   | FAR<br>27-08564-803                                                                | 116000                | GD/C REC              | GD/C REC YES PUNCLATOR . INSP NO 64986-1 | •      |
| FAILURE MODE-CONTANI<br>NO LOCATED ON UPSTREA<br>CORRECTIVE ACTION-60                   | FAILURE MODE-CONTANINATION-DUE TO FOREIGN MATERIAL POUND BONDED ON FILTER ELEMENT. FOREIGN MATERIAL MAS ALUMINAN, A<br>NO LOCATED ON UPSTREAM SIDE OF FILTER ELEMENT.<br>CORRECTIVE ACTION-60/C SUSPENDED PURCHASES OF FILTERS FROM THIS SOUNCE. NEW BOUNCE IS MICROPOROUS FILTER COMPANY. | DOED ON FILTER ELED THIS SOURCE. NEW M                                             | ENT. PORE             | I EM MATERI I         | IL MAS ALUMINUM, A                       |        |
| HORAU, IC-AZD                                                                           | 69A304.E<br>Plane                                                                                                                                                                                                                                                                          | UTP-ETT<br>27-06590-8                                                              | 640309                | CONVAIR               | YES VICKERS<br>NO AA-60410-L-E           | 99,700 |
| FAILURE INCEL-CUT OF TOLER<br>LOW TO ZERO FLOW IN THE RE<br>421657 REV A 37M 303-03335. | FAILURE PROCESULT OF TOLERANCE, DURING PERFORMANCE TEBTS THE UNIT FAILED TO REGULATE FLUTO FLOW OCLIVERY FROM FULL FLOW OF SEGO FLOW IN THE REQUIRED TIME O 0.05 SEC. THE ACTUAL TIMES VARIED BETWEEN 0.075 TO 0.066 SEC. REF. FPR NR F-42105T REV A 5/N 303-0333.                         | E UNIT FAILED TO REG                                                               | HLATE FLU<br>EN 0.079 | 10 FLC4 0E1           | JYERY FROM FULL F.                       |        |
| CORFFERNCE ACTION-1EST<br>E PSAULACHENTS, REF FRR                                       | CCM11MCD- PUMP CAMMOT PASS THE<br>F# 634-2-224: FR 634-2-429: BCM                                                                                                                                                                                                                          | TESTS USING THE PRESENT PURP SPECIFICAT<br>MO.1417U CHANGES THE PURP REQUIREMENTS. | T PUMP SPE            | CIFICATION<br>EMENIS. | TRANSIEM! RESPONS                        |        |
| VYDEAULIC-A78<br>SUSTAINGR/VCANIER                                                      | 69A1904.Z                                                                                                                                                                                                                                                                                  | UTP-ETT<br>&7-06580-3                                                              | 122076                | CONVAIR               | YES VICKERS<br>NO AA-SUGIO-L-E           | •• 700 |
|                                                                                         |                                                                                                                                                                                                                                                                                            |                                                                                    |                       |                       |                                          |        |

FAILURE MICE-FULL OF FOLERANCE, OURING PERFORMANCE TESTS THE UNIT FAILED TO REGULATE FLUID DELIVERY FROM FULL FLOM T O lead Film in the Remulato Tine of 0.08 BEC, The Actual Tines Varied Betheen 0.088 TO 0.070 BEC, Ref. FPR NA F-ARIS BE ALVISION A SAN BOS-0850.

COMMECTIVE CONTINUES OF CONTINUED POMP CAN NOT DARY THE SERVE THE PRESENT PUMP PRESENTENT ABARDA READON TRANSLENT ABARDA THE PUMP PRECIPIESTON TRANSLENT ABARDA TO THE THE PUMP REQUIREMENTS.

18 JUN 1866

**▼** .....

# DIFFICULTIES REVIEW-HYDRAULIC STRIEM-AIRBORNE

|                                             | • • • • • • • • • • • • • • • • • • • •     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 686                                                                                                                                |                                                   | •                                             |                                                                                                                                                                                                                                                                                  | •<br>•                                                                                                                                                                                                                                                                                                                                                          |
|---------------------------------------------|---------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|-----------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| VENDOR NAME<br>VENDOR PART NO               | YES LIGHEL PACIFIC NO                       | ALDER JOINT WAI                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                    |                                                   | YES CLEMCO<br>NO 2732-2                       | PISTON SHAFT C                                                                                                                                                                                                                                                                   | YES DEMON<br>NO SELED<br>NL FLOM VS CRACKIN<br>NACL-OFEC: FPR-508                                                                                                                                                                                                                                                                                               |
| BITE PRI                                    | FACTORY YES                                 | ADEQUATE BO<br>ADEQUATE BO<br>LDER JOINT<br>WEY B7-64 T                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | FACTORY TES NO NO THE FAILURE                                                                                                      |                                                   | FACTORY YES                                   | D FROM THE SUPPL 8 TO                                                                                                                                                                                                                                                            | CONVAIR YES NO (ITTAL (FULL P 1-806E, R/M401                                                                                                                                                                                                                                                                                                                    |
| VEHICLE BITE PRI<br>DATE DIP TIME DIP OTH   | 3500 FA                                     | UME TO AN IN.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 640216 FA                                                                                                                          |                                                   | 940216 FA                                     | ORAULIC FLUII                                                                                                                                                                                                                                                                    | 940237 CO<br>ME DIFFERENT<br>1-0766, FPR-8                                                                                                                                                                                                                                                                                                                      |
| DIF DATA SOURCE<br>PART NUMBER              | FAR<br>E7-6531E-605                         | ATTRIBUTED THE PAIL  T.  T.  TO SPECIFY KENTER  TION. ANTROMAUTICE I                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | FAR 840R18 FACTORY YES CADILLAC 64GE 27-04208-1 NO FC-27-387A NAS REJECTED FOR LOW OUTPUT AT 80 CYCLES. THE FAILURE MAS DUE TO 1MS | HED .                                             | FAR<br>27-08573-3C                            | IEPORTEDLY LEAKED MY                                                                                                                                                                                                                                                             | UTP-PET<br>E7-00969-1<br>MET 30 PBIG PAEBBU                                                                                                                                                                                                                                                                                                                     |
| TEBT/REPONT NUMBER<br>FAILED COMPONENT NAME | LV-AS-04-4694-F<br>ACTUATOR ASSEMBLY: SCREW | FAILURE HODE-STRUCTURAL. THE VERNIER E PITCH SERVOCTLINDER WAS FOUND TO BE OUT OF TOLERANCE WITH AN IMACTIVE MULL O F 0-280 VOLT. THE MAXIMUM ALLOMABLE IS 0.230 VOLT. AMALYSIS ATTRIBUTED THE FAILURE TO AN IMADEBUATE SOLDER JOINT MAI CM ALLOMED THE TARGET SCREW TO ROTATE AFTER FIMAL ADJUSTMENT. CORRECTIVE ACTION-CADILLAC GAGE REVISED THEIR YALVE DAMINGS TO SPECIFY KESTER 44 80-40 SOLDER JOINT CAPABLE OF MIT HSTANDING S IN-OZ TORBUE APPLIED TO THE SCREW IN EACH DIRECTION. ASTROMAUTICS INITIATED SURVEY 97-84 TO CHECK THE TA RECT SCREW SOLDER BOND ON ALL CADILLAC GAGE SERVOMALVES. | DRAULIC-A/6 137AIMER/VERNIER SERVO VALVE FAILUIE MOCE-OUT OF TOLERAME, THE SERVO VALVE WAS REJECTED                                | IOH-VENDORS IN-PROCESS INSPECTION IN S UP-GRADED. | LV-A9-G4-4868-F<br>ACILA FOR ASSEMBLY, O-RJM6 | FAILURE MODE-LEAK-EXTERNAL, THE VERNIER ACTUATOR ASSEMBLY REPORTEDLY LEAKED HYDRAULIC FLUID FROM THE PISTON SHAFT C<br>RIMG SEAL IN THE STATIC CONDITION.<br>CORRECTIVE ACTION-PERSONNEL HERE INSTRUCTED TO CAREFULLY FOLLOW ASTACHUUTICS RCS 140-10-1 SUPPL 3 TO PRECLUDE RECUR | DANCTIC-ATD E7-3296 UTP-PET 640217 CONVAIR YES BENDOM ISTAINER/YERNIER VALYE, SAFETY RELIEF E7-00969-1 NO 92120 NO 92120 FAILURE HOSE/OUT OF TOLERANCE, PART 8/N 303-9718 FAILED TO MEET 30 PSIG PRESSURE DIFFERENTIAL (FULL FLOM VS CRACKIN PRESSURE) IN OME OF THREE COST 11PE FEST PROCF LYLLES, REF. FPR 5060, 8/N 358-9766, FPR-5062, R/M401-0760, FPR-506 |
| 9731EM<br>8-46-5731EM                       | MTDRALLIC-A/B<br>Bustaiper/Vermier          | FAILURE HODE-STRUCTURAL F 0.280 VCLT. THE HARINU CH ALLOMED THE TARGET SC CORRECTIVE ACTION-CADIL HSTANDING S IN-OZ TORQUE RGET SCREW SOLDER BOND C                                                                                                                                                                                                                                                                                                                                                                                                                                                     | MYDRAULIC-A/B SUSTAINER/YERNIER FAILUIE HODE-OUT OF TO                                                                             | <b>p</b> - 1                                      | HYDRALLIC-A/B<br>SUSTAINER/VERMIER            | FAILURE NOSE-LEAR-EXTER-<br>-RIMG SEAL IN THE STATIC<br>CORRECTIVE ACTION-PERSO<br>RENCE OF THIS PROBLEM.                                                                                                                                                                        | HYDRAULIC-A/D SUSTAINER/YERNIER FAILURE HOSE-OUT OF TO. 6 PRESBURE) IN ONE OF TH B.                                                                                                                                                                                                                                                                             |

SOURCECTUL ACTION ACTION ACT OF 855-E-146. ECP 7955 SIGNITIES TO REVISE SPECIFICATION ET-06503 TO DELETE THE REQUIRES SO PRID DIFFICALATAL PRESSURE LEST BEINERM CRACKING AND FULL FLOW.

GENERAL DYNAHICA CONVAIR DIVIBLOR

19 1UM 1766

i

|                                                                                       |                                        |                                                                                                                                                                                                                                                                                                                              | האאתור פופונא-אואפת                                                   | -                        |                       |            |                                     | _           |
|---------------------------------------------------------------------------------------|----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|--------------------------|-----------------------|------------|-------------------------------------|-------------|
| 81.47E<br>8.46 - 87.8 TEN                                                             | H<br>TEN                               | TEST/REPORT NUMBER<br>FAILED COMPONENT NAME                                                                                                                                                                                                                                                                                  | DIF DATA SOURCE<br>PART HUMBER                                        | VEHICLE<br>DATE DIF      | 11 M 014              | 2 5        | VENDOR NAME<br>VENDOR PART NO       | <del></del> |
| MYDRAULIC-A/B                                                                         | ĭ                                      | LV-88-34-47(4F<br>ACTUATOR-0-47M6                                                                                                                                                                                                                                                                                            | FAR<br>27-8551-808                                                    | #500<br>#40#16           | A T                   | ដូទ        | TES LIGHEL PACIFIC<br>NO            | :           |
| FAILURE MODE-LEAR ERTERNA<br>6 17. SLIGHT LEARAGE WAS O<br>RING MITH BUNFACE DEFECTS. | LEAK EKTER<br>EARAGE WAS<br>ACE DEFECT | FAILUME WIDE-LEAK EXTERNAL-THE WERNIER ACTUATOR HAS REJECTED WHEN POOLS OF OIL MERE FOUND IN THE FAIRING SURROUNDIN<br>5 IT. SLIGHT LEARAGE WAS GRSERVED DUKING FAILUME ANALYSIS. THE LEARAGE MAS ATTRIBUTED TO THE USE OF A SUBSTANDARD O-<br>RING MITA SUMFACE DEFECTS.                                                    | THE LEARAGE MAS ATTE                                                  | L MERE FOUR              | NO IN THE             |            | SUBSTANDARD O-                      |             |
| CORPECTIVE ACT                                                                        |                                        | ON-NOME, PROCESS CONTROLS INSTITUTED AT LIGHEL PACIFIC AFTER THIS UNIT HAS MANUFACTURED ARE CONSIDER                                                                                                                                                                                                                         | OMEL PACIFIC AFTER TO                                                 | HIB UNIT H               | AS MANUFA             | CTUR       | D ANE COMBIDER                      | ··          |
| HYDRAULIC-A/B<br>BUSTAIMER/YERNIE                                                     | ¥3                                     | SETT-EDGO<br>SUSTAINER H.D. TANK-O RING                                                                                                                                                                                                                                                                                      | UTP-PET<br>27-06552-5                                                 | 31307                    | COLIVAIR              | ž 8        | YES BENGOM<br>NO 89836              | •           |
| FAILURE MODE-L<br>RIME WAS EXCESS<br>L./MOUR, AT AMB                                  | LEAT INTER<br>SIVE. AT H<br>BIENT AND  | FAILURE MOCE-LEAN INTERNAL. DURING TEMPERATURE AND LIFE CYCLING TEST, THE GAS PRECMARGE LEARAG ACROAS THE PISTON O-<br>RING WAS EXCESSIVE. AT MINUS 15 DEGREES F, 2-5 ML. IN 7 MIN.,15 ALLOMBLE. AT 8 DEGREE F. 5.0 ML. IN 45 MINUTES. E M<br>L./Hour, at ambient and 5.0 ml. in 5 min. Ref. FPR NR F-5075 BMT 8/N 508-0372. | TCLING TEST, THE GAS<br>H.,13 ALLOMBLE. AT 1<br>ITS BHT S/N 508-0372. | PRECHANGE<br>B DECAREE F | LEAKAE A . 5.0 M.     | 0 ±        | THE PISTON O-<br>IS MINUTES. E M    |             |
| CORRECTIVE ACT                                                                        |                                        | CH-THE GIL MAS CONT'NINATED FROM THE TEST BET UP. THE UNIT MAS REFUNSIBNED AND PLACED BACK INTO TEST                                                                                                                                                                                                                         | BET UP. THE UNIT MAS                                                  | REFURBI BH               | 8 A6                  | A7.E0      | BACK INTO TEST                      |             |
| HTD AU IC-A/B                                                                         | EA                                     | ETASSSO<br>VERHIER FLOM LIMITER VALVE                                                                                                                                                                                                                                                                                        | UTP-PET<br>E7-04208-1                                                 | 313076                   | <b>E</b> /C           | 28         | \$7£RER<br>\$3000                   | 000         |
| FAILURE MODE-C<br>NT 1.35 GPW MIN<br>TE FLOM MAS ALS                                  | OUT OF TOL<br>NINUM), NE<br>SO EXCESSI | FAILURE WOCE-OUT OF TOLERANCE. DURING P.E.T. TEBT, PLOW RATES VARIED FROM .47% TO 1.04 6PM (BPECIFICATION RESULAENC<br>NI 1.33 CPM HINIMUM), WERE OUT OF TOLERANCE DURING FLUID LOW TEMPERATURE TEBTI-89 DWP), REFER TO FRR 038. BTEADT BTA<br>TE FLOM MAS ALSO EXCESSIVE ON 040210. TEST BMECINEN BAN 804-183E.             | IATES VARIED PROM 1471<br>OM TEMERATURE TEST (-<br>14-183E -          | # 70 1.04<br>-90 047).   | GPH (BPEC<br>REFER TO | 7 M C      | ITICH RESULATIVE<br>ISS. STEADT STA |             |
| CORRECTIVE ACT                                                                        |                                        | ION-ECP 7888 SUBMITTED TO RELAK BPECIFICATION LINITS.                                                                                                                                                                                                                                                                        | ON LINITS.                                                            |                          |                       |            |                                     |             |
| MYDRAULIC-A/B<br>BUSTAINER/VERNIER                                                    | E.4                                    | LV-JA-10-239-F<br>MANIFOLD ABBENELT                                                                                                                                                                                                                                                                                          | 7 A R<br>27 - 63326 - 1                                               | 113070                   | FACTORY               | <b>1</b> 0 | 7 <b>68 6</b> 0/0                   | •           |
| FAILURE MODE-6                                                                        |                                        | RUCTURAL. DUE TO BUBSTANDARD WELD JOINTS. (RE UNITS).                                                                                                                                                                                                                                                                        | (gg UM178) .                                                          |                          |                       |            |                                     |             |
| CORRECTIVE ACTI                                                                       |                                        | CH-AADTOCAAPHIC INSPECTION WAS INCORPORATED PLUS A CHECK OF MATERIAL HANDLING AND PACKABING. ITEN IS                                                                                                                                                                                                                         | D PLUS A CHÉCA OF PA                                                  | TERIAL MAN               | 01.146 AND            | PAC        | 1467N6. 11EN 18                     |             |
|                                                                                       |                                        |                                                                                                                                                                                                                                                                                                                              |                                                                       |                          |                       |            |                                     | <b>†</b> .  |

| DIVIDIO |
|---------|
| COMVAIR |
|         |

|                                                                              | DIFFICULTIES REVIEW-HYDRAULIC SYSTEM-AIRBORNE                                                                                                                                                                                                                                                                                                                            | RAULIC SYSTEM-AIRBON                                                 | ¥                       |                                      |            |                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|-------------------------|--------------------------------------|------------|------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3131EM<br>3UB-3131EM                                                         | TEST/REPORT NUMBER<br>FAILED COMPONENT NAME                                                                                                                                                                                                                                                                                                                              | DIF DATA SOURCE<br>PART NUMBER                                       | VENICLE<br>DATE DIP     | SITE<br>TIME DIF                     | 25         | VENDOR MANE<br>VENDOR PART NO                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| HTDRAULIC-A/B<br>BUSTAINER/YERNIER                                           | LV-3D-04-4661-F<br>ACTUATOR ASSENGET, O-RING                                                                                                                                                                                                                                                                                                                             | FAR<br>27-85311-809                                                  | 012070                  | ž,                                   | 200        | YES LIGHEL PACIFIC                             | 9999                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| FAILURE MODE-LEAK EXTER MCE INSPECTION IN MAS-5. DIMENSIONAL MEASUREMENTS D. | FAILURE MODE-LEAK EXTERNAL. THE VERNIER BERVOCYLINDER ABBENBLY BHOMED EVIDENCE OF A MYDRAULIC LEAK DURING BURVEILLA<br>MCE INSPECTIC" IN MAB-B. AMALYBIB COULD NOT CONFIRM THE REPORTED FAILURE ALTHOUGH O-RING ELCHGATION TEST VALUES AND<br>DINENSIONAL HEASURENENTB WERE BUFFICIENTLY BELOW REBUIRENENTB TO INDICATE THE O-RINGS WERE BUBSTANDAND WHEN INSTALLE<br>D. | MELY SHOKED EVIDENCY<br>ORTED FAILURE ALTHO<br>I'S TO INDICATE THE ( | COTANDE                 | AULIC LEA<br>ELOMBATIO<br>IE BUBBTAN | A 00.4     | ING BURVEILLA<br>T VALUES AND<br>UMEN INSTALLE |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| CORRECTIVE ACTION-LION                                                       | CORRECTIVE ACTION-LIONEL-PACIFIC ASSURED THAT THE BUALITY OF O-RINES WILL BE KEPT WITHIN THE REBUINED STANDANDS.                                                                                                                                                                                                                                                         | OF O-RINGS WILL BE !                                                 | KPT WITHIN              | THE REGU                             |            | STANDARDS.                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| MTDRAULIC-A/B<br>BUSTAINER/VERNIER                                           | E7-3290<br>Valve, sapety relief                                                                                                                                                                                                                                                                                                                                          | U1P-PET<br>E7-08569-1                                                | 903079                  | COMATA                               | YES BENGOM | BENBOW<br>92120                                | • 1041                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| FAILURE HODE-INTERNAL L                                                      | FAILURE HODE-IMTERNAL LEAR. PART 3/N 303-0718 FAILED DUE TO INTERNAL LEAKAGE RATE IN MICH TEMPERATURE TEST PROOF CY<br>CLE, FPR 5048. TEMPERATURE 273 DEGREES F LEAKAGE RATE 4.2 CC/NIN.                                                                                                                                                                                 | O INTERNAL LEAKAGE I<br>C/HIN.                                       | IATE IN HIG             | и темела                             | 10E        | TEST PROOF CY                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| CORRECTIVE ACTION-REF. ALLOMABLE LEARAGE RATE 1                              | CORRECTIVE ACTION-REF. FR854-"-148. CONTINUE TEST, ECP 7883 SUBMITTED TO REVISE SPECIFICATION 27-08501 TO INCREASE<br>ALLOMBLE LEARAGE RATE TO 30 CC/MIM AT 3150 PS16 AND 80 CC/MIM AT 3000 PS16.                                                                                                                                                                        | S SUBMITTED TO REVIE<br>MIN AT 3000 P816.                            |                         | A710H £7-                            | 105.00     | TO INCREASE                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| HYDRAULIC-A/B<br>BUSTAINER/VERNIER                                           | LV-A9-04-4660-F<br>ACTUATOR BLEED VALVE                                                                                                                                                                                                                                                                                                                                  | FAR<br>27-06563-5                                                    | 903079                  | FACTORY                              | 753 7      | YES LICHEL PACIFIC<br>NO 8725-1                | ***                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| FAILUNE MODE-LEAK-EXTER<br>YDRAULIC FLUID FROM THE                           | FAILUME MOE-LEAK-EXTERNAL. THE BUBTAINER ACTUATOR ABBENBLY FAILED DURING MANUFACTURING TEBTING DUE TO LEARAGE OF H<br>Toraulic fluid from the bleed fort. This was caused by a poor finism of the bleeder valve sealing burface.                                                                                                                                         | T FAILED DURING MAIN.<br>OR FINION OF THE BLI                        | FACTURING<br>EDER VALVE | 7E871M6 D<br>: 8EALIM6               | UE TO      | . LEARAGE OF H                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| CORRECTIVE ACTION-LIONE<br>AM 9204 BLEEDER VALVER N                          | CORRECTIVE ACTION-LIONEL-PACIFIC RECEIVING INSPECTION PROCEDURES AND ACCEPTANCE TEST PROCEDURES NERE REVIEWED. ALL<br>M 8204 BLEEDER VALVES NOW RECEIVE 100 PER-CENT INSPECTION.                                                                                                                                                                                         | EDURES AND ACCEPTANC                                                 | E TEST PAC              | CEDUMES W                            |            | EVIENCO. ALL                                   | Orange and the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Contro |
| HTDRAULIC-A/B<br>BUSTAINER/VERNIER                                           | ET-1200<br>VALVE, BAFETY RELIEF                                                                                                                                                                                                                                                                                                                                          | UIP-PET<br>ET-06569-1                                                | 908079                  | CONTAIR                              | 768 BENBOM | 92120                                          | 0.040                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| FAILURE MODE-OUT OF BPE<br>CAING PRESSURE) DURING T                          | FAILURE MODE-OUT OF SPECIFICATION. PART 8/M 305-0716, FAILED TO MEET 30 PSIG PRESSURE DIFFERENCE (FULL PLOM VS. CRA<br>AING PRESSURE) DURING THE INTERMEDIATE TEMPERATURE TEST PROOF CYCLES, REF. FPR 5066.                                                                                                                                                              | ED TO WEET 80 PAIG F<br>OOF CYCLEB. REF. FPA                         | 1688UME DI              | PFERENCE                             |            | PLOM VB. CRA                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| CORRECTIVE ACTION-REF.                                                       | CORRECTIVE ACTION-REF. FR 838-2-148. ECP 7883 SUBMITTED REVISING SPECIFICATION 27-08501 TO BELETE THE CRACKING PRES-<br>UNE RESULRENENTS INCLUDING THE 50 PRIS DIFFERENTIAL BETWEEN FULL PLOM AND CRACKING PRESSURE.                                                                                                                                                     | VISING SPECIFICATION<br>IN PULL PLOW AND CRAC                        | E7-08501                | TO PELETE                            | Ā          | CRACKING PRES                                  | •                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

8961 WOF 81

DIFFICULTIES REVIEW-HYDRAULIC SYSTEM-AIRBORNE

| 87.81EH<br>840-373TEM                                                                               | TESTARFORT NUMBER BIF DATA BOURCE<br>FAILED CONFORENT NAME PART NUMBER                                                                                                                                                                                                                                           | BIF DATA BOURCE<br>PART NUMBER                        | VEHICLE DATE DATE DIF TIM     | 817E PR1               | PRE VENDOR NAME<br>OTH VENDOR PART NO                     |                                         |
|-----------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|-------------------------------|------------------------|-----------------------------------------------------------|-----------------------------------------|
| HTDRAULIC-A/B<br>BUSTALHER/YEMMIER                                                                  | A-98-04-4708-F<br>ACTUATOR ABBENGLY                                                                                                                                                                                                                                                                              | FAR<br>87-05311-011                                   | 5E GTR<br>640205              | i d                    | TES LIGHEL PACIFIC                                        | 0028100                                 |
| FAILURE MODE-LEAK-EXTERN<br>THE ACTUATOR SMAFT SEAL.<br>ER DYNAMIC COMDITIONS MAS                   | FAILURE MOE-LEAK-EXTERMAL. THIS VERHIER E PITCH BERVOCYLINDER ASSEMBLY WAS REPORTEDLY LEAKING "YDAAULIC FLUID PAST<br>The actuator saaft seal, amalysis found no discrepancies. There was no leakase under static co-ditions, leakase und<br>Er dynamic combitions was within specification Linits.              | ER ASSEMBLY WAS RE                                    | PORTEDLY LEAK<br>UNDER 87ATIC | 106 "YDAA<br>CC-401710 | ULIC FLUID PAST<br>NS. LEAKAGE UND                        |                                         |
| CORRECTIVE ACTION-NOME.                                                                             |                                                                                                                                                                                                                                                                                                                  |                                                       |                               |                        |                                                           |                                         |
| HTDRAULIC-A/B<br>BUSTAINER/VERNIER                                                                  | 69A1930.3<br>SUSTAINER ACTUATOR ABSEMENT, BERVO ET-05314-017<br>VALVE                                                                                                                                                                                                                                            | UTP-PRT<br>87-03314-017                               | 3/ <b>93 103018</b>           |                        | VES LICHEL PACIFIC                                        | •                                       |
| FAILURE MODE-OUT OF SPECIFICATION OR TOLERANCE-<br>MALL CURRENT MAS -0.49 MA. REG. IS 0.20 MA. MAK. | OF SPECIFICATION OR TOLERANCE- DURING PROOF CYCLE AFTER PRT TEMPERATURE VIBRATION THE SERVO VALVE<br>0.89 Ma. Reg. IS D.20 Ma. Ma <sup>k.</sup>                                                                                                                                                                  | . CYCLE APTER PRT TI                                  | EIPERATURE VI                 | MATION T               | HE BERNO VALVE                                            |                                         |
| CORRECTIVE ACTION-TEST CONTINUED.<br>TO. THE UNIT REQUIRES REDESICH TO                              | CORECTIVE ACTION-TEST CONTINUED. THE UNIT WAS TESTED WITH SINE/RANDON VIBRATION TO WHICH THE UNST CAN NOT STAND UP<br>To. The unit requires redesize to withstand the szr vibration.                                                                                                                             | JINE/RANDOH VIBRATI                                   | ON TO WHICH IT                | E UNIT C               | AN NOT STAND UP                                           |                                         |
| HYDRAULIC-A/B<br>Bustainer/Vermier                                                                  | ETASIOO<br>VERNIER BERVO VALVE                                                                                                                                                                                                                                                                                   | UTP-FET<br>ET-04E08-1                                 | 3/03 <b>503</b> 013           |                        | YES CADILLAC GAGE                                         | 997179                                  |
| FAILURE MODE-OUT OF TOLE<br>PECIFICATION VALUE IS 0.2                                               | OF TOLERANCE. DURING PET TEST, POST LIFE TEST; SERVO VALVE MULL CURRENT MAS PLUS 0.33 MILLIAMPS 18<br>18 0.2 MILLIAMPS. TEST SPECINEM S/N 300-1781; LOT 41- REFER TO FRR 187.                                                                                                                                    | 131, BERNO VALVE NU<br>181, LOT 41- REFER             | LL CURRENT MA<br>TO FRR 157.  |                        | 33 MILLIAMS (8                                            |                                         |
| CORECTIVE ACTION-DISABS<br>A BAIFT IN NULL POSITION,<br>78(1.08105), THE LOT MAS                    | CORECTIVE ACTION-DIBABEHBLY OF VALVE REVEALED THAT THE BALL ON THE FEEDBACK LEVER HAD MORN BUFFICIENTLY TO CAUSE<br>A BAIFT IN HULL POSITION, THEREST INCREASING CURRENT REGUIRENENTS. MONEVER, DUE TO LARGE MUNDERUF LIFE CYCLES ON UN<br>ISILIARIOS), THE LOT MAS ACCEPTED. VLNDOR TO IMPROVE BUALITY CONTROL. | L ON THE FEEDBACK .<br>ENTS, HOMEVER, DUE<br>CONTROL. | LEVER HAD NOR<br>TO LARGE HUM | ERC LIF                | MORN BUFFICIENTLY TO CAUSE<br>MUMBERLF LIFE CYCLES ON UNS |                                         |
| HTDRAULIC-A/B<br>Bustainer, Vermier                                                                 | A-68-64-4701-F<br>ACTUATOR ABBENEY, O-RING                                                                                                                                                                                                                                                                       | FAR<br>27-05314-023                                   | 5E ETA                        | <u>5</u> 8             | YES LIGHEL PACIFIC                                        | • • • • • • • • • • • • • • • • • • • • |
| FAILURE MODE-EXTERNAL LE<br>816. THE FAILURE MAS ATTR                                               | FAILUME MODE-EXTERNAL LEAK. THE BUBTAINER BERVOCYL!NDER LEAKED HYDRAULIC FLUID DYNAMICALLY AND BYATICALY AT BOOG P<br>Big. The Pailume was attributed to an o-Ring Having Holding depects and contantnation abrabion.                                                                                            | IED HYDRAULIC FLUID<br>NETECTO AND CONTANI            | DYNAMICALLY<br>Nation Abrabi  | N6 STATE               | CALLY AT 3000 P                                           |                                         |
| COMECTIVE ACTION-ALL O-R<br>AND OTHER MOLDED DEFECTS.                                               | COMECTIVE ACTION-ALL O-RINGS USED IN ACTUATORS ARE INSPECTED UNDER NASNIFICATION FOR EVIDENCE OF VOLDS. MOLD LAPS.                                                                                                                                                                                               | ID UNDER MAGNIFICAT                                   | ION POR EVIDE                 | 8                      | MBB: MOLD LAPS.                                           |                                         |

Personal Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of t

一年まれたのであるとあるというとなっていまっておいているとしているとなっていいでしてい

18 1UM 1866

| ٢                                          | •                                                                    | • 7¢ • 0                                | <b>- 2</b>                                                                                                                                                                                                                                                                                                          | 1                                                                           | 2.0                                                                                                                                                                                                                                                                                                                    | •                                    | e ž                                                                                                                                                                                                                                          | 2 v                                                                                                                                                                                                                                                                                                                                       | 999                                          | Ä                                                                                                                                    | 1                                                     |
|--------------------------------------------|----------------------------------------------------------------------|-----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|
|                                            | WENICLE BITE PRI VENDOR NAME<br>DATE BIF TIME BIF OTH VENDOR PART NO | YES PEACOCK<br>HO SIESG-B               | THE AN FIT                                                                                                                                                                                                                                                                                                          | TES LICHEL PACIFIC 006000                                                   | ME 7-4113                                                                                                                                                                                                                                                                                                              | 9E120                                | ID NO. ATHEA<br>POUND IN VAL                                                                                                                                                                                                                 | BTING CONTIN                                                                                                                                                                                                                                                                                                                              | WO LIGHEL PACIFIC 005050                     | TAINER TAN P                                                                                                                         |                                                       |
| ᆫ                                          | OTA                                                                  | 4 OF                                    | D V S V S V S V S V S V S V S V S V S V                                                                                                                                                                                                                                                                             | 25                                                                          | ¥.                                                                                                                                                                                                                                                                                                                     | VES BENBOM                           | 11CLES                                                                                                                                                                                                                                       | 1ME TE<br>10 BE 1                                                                                                                                                                                                                                                                                                                         | 20                                           | ¥                                                                                                                                    |                                                       |
|                                            | 817E<br>71ME DIP                                                     | <b>01HER</b>                            | D AT THE BHARP CO                                                                                                                                                                                                                                                                                                   | <b>9</b>                                                                    | ATIONS A                                                                                                                                                                                                                                                                                                               | CONVAIR                              | YGLE SPEC                                                                                                                                                                                                                                    | RILY AND<br>ERNINGED 1<br>E.                                                                                                                                                                                                                                                                                                              | Š                                            | 73 of 10                                                                                                                             |                                                       |
|                                            | VEHICLE<br>DATE DIF                                                  | 202079                                  | NIT CHACKE                                                                                                                                                                                                                                                                                                          | 102019                                                                      | E NOUNTING<br>6 CONCENTR                                                                                                                                                                                                                                                                                               | 131070                               | 57 PROOF C                                                                                                                                                                                                                                   | SATISFACTO<br>ES MAS DET<br>MON IN US                                                                                                                                                                                                                                                                                                     | Kai ka                                       | MIC BISTON                                                                                                                           |                                                       |
| DITTICK ING REVIEW HOUSELIC STREET AINDONE | DIF DATA SOURCE<br>PART NUMBER                                       | UTP-BLT<br>R7-06556-8                   | MATION SMEEP THE U<br>MED TO BE CONTANINA<br>FALLATION.                                                                                                                                                                                                                                                             | UTF-BLT                                                                     | F MAS NOTED THAT THE DUE TO HISM STRES                                                                                                                                                                                                                                                                                 | UTP-PET<br>27-06568-1                | ITIAL ACCEPTANCE TE<br>PBI REF FPR-5046. P                                                                                                                                                                                                   | T CYCLES PERFORMED<br>TIC END CAP PARTICL<br>ICE OF PLASTIC CAPS                                                                                                                                                                                                                                                                          | 7AA<br>87-66314-663                          | CAUSE OF COD MARKE                                                                                                                   |                                                       |
|                                            | TEST/REPORT NUMBER FAILED COMPOMENT NAME                             | SPHEOFI.1<br>DISCOMMET-STABING, PITTING | FAILURE MODE-STRUCTURAL-BURING THE LAST MIMUTE OF A SLT VISRATION SMEEP THE UNIT CRACKED AT THE SASE OF THE AN PITT<br>ING CAUSING A FINE SMAT OF OIL, REF. S/N SIS-0808. DETERMINED TO SE CONTANINATION OF S. SMARP COMEN ON COMPONENT IN<br>OT PER DRAWING AND E. COMDITION AGGRAVATED BY TEST MOSE INSTALLATION. | 69C195E.1<br>VERNIER ACTUATOR ASSEMBLY, TRANSDU E7-8331E-808<br>CER BRACKET | FAILURE MODE-STRUCTURAL-PRIOR TO START OF SLT VIBRATION, IT WAS MOVED THAT THE MOUNTING CLIP ON THE PROSE END OF THE FEEDBACK TRANSDUCER WAS BROKEN OFF. THE BRACKET WAS BROKEN DUE TO HIGH STRESS CONCENTRATIONS. ALF. FPR MR F-4133 & T S/N 204-0360.  CORRECTIVE ACTION-MONE. CONTINUE TEST. REF. FRR FR 854-E-151. | ET-3596<br>Valve, BAPETY RELIEF      | FAILURE MODE-OUT OF TOLERANCE. PART 8/M 303-0716 FAILED INITIAL ACCEPTANCE TEST PROOF CYCLE SPECINEN DID NO! KREAT<br>Until 2200 P31. Minimum Allomble Reseat Pressure is 8150 P81 Ref FPR-5066. Plastic END Cap Particles Found in Valv<br> | CORRECTIVE ACTION-REF. FR 454-2-144, THREE ADDITIONAL PROOF CYCLES PERFORMED SATISFACTORILY AND THE TESTING CONTINU<br>ED. THE SPECIMEN WAS DISASSEMBLED AND CONTAMINATION BY PLASTIC END CAP PARTICLES WAS DETERMINED TO BE THE PROSABLE C<br>AUSE OF THE MALFUNCTION. VENDOR TO USE NETAL END CAPS IN PLACE OF PLASTIC CAPS NOW IN USE. | A-98-04-4711F<br>Bustainer actuator Assembly | FAILURE MOGE-ERRATIC OPERATION-THE ACTUATOR WAS REJECTED BECAUSE OF ODD MARHONIC BISTORTION OF THE SMITAINER YAN PE<br>Deack bignal. | CORRECTIVE ACTION-MONE-THE FAILURE MAD NOT CONFIRMED. |
|                                            | 8787EN<br>805-8787EN                                                 | nydraul I C-a/b<br>Bubtainer/Vermier    | FAILURE MOE-STRUCTURAL-<br>ING CAUSING A FINE SPRAY<br>OF PER DRAWING AND E. COM                                                                                                                                                                                                                                    | HVDRAULIC-A/B<br>Bustainge/Vernigr                                          | FAILURE MODE-STRUCTURAL-<br>E FEEDBACK TRANSDUCER UNS<br>T B/N E04-0360.<br>CORRECTIVE ACTION-MOME.                                                                                                                                                                                                                    | MYDRAUL I C-A/B<br>BUSTAINER/VERNIER | FAILURE MOE-OUT OF TOLE<br>UNITL EEUD PSI. MINIMUM<br>E.                                                                                                                                                                                     | CORECTIVE ACTION-REF. F<br>ED. THE SPECIMEN WAS DISA<br>AUSE OF THE MALFUNCTION.                                                                                                                                                                                                                                                          | OVDRALLIC-A/B<br>BUSTAINER/VERNIER           | FAILURE MODE-ERRATIC OPE<br>Edback Bighal.                                                                                           | CORECTIVE ACTION-NOME-1                               |

15 JUN 1966

į

|                                                                                              | DIFFICULTIES REVIEW-WIDRAULIC SYSTEM-AIRBORNE                                                                                                                                                                                                                                                                                              | IAULIC SYSTEM-AIRBON                                                             | ¥                        |                                     |            |                                                  |             |
|----------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|--------------------------|-------------------------------------|------------|--------------------------------------------------|-------------|
| M31818<br>M31818                                                                             | TEST/AEPONT NUMBER<br>FAILED COMPOMENT NAME                                                                                                                                                                                                                                                                                                | DIF DATA BOURCE<br>PART NUMBER                                                   | VEHICLE<br>DATE BIF      | \$17E<br>11ME D19                   | 9 0<br>1 H | VEHICLE SITE PRI VENDOR MANE                     | <del></del> |
| MTDRAULIC-A/B<br>BUBTAINEA/VERNIER                                                           | LV-69-04-4703-C<br>ACTUATOM ASSEMBLY                                                                                                                                                                                                                                                                                                       | FAR<br>27-05311-000                                                              | 8040<br>640160           | PACTORY                             | ÷ 9        | TER LICHEL PACIFIC                               | :           |
| FAILURE MOE-LEAK-EXTER<br>OUND THE PISTON AT A STE                                           | FAILURE MODE-LEAR-EXTERNAL. THIS VERHIER SERVOCYLINDER WAS REJECTED WHEN IT DEVELOPED LEARAGE OF HYDRAULIC FLUID AR<br>NAMO THE PISTON AT A STEADT DAIP WITH PRESSURE APPLIED. THE ASSEMBLY WAS LOST WHILE IN TRANSIT FOR FAILURE AMALTSIS.                                                                                                | MAS REJECTED WITH IT DEVELOPED LEAKAGE<br>THE ASSEMBLY WAS LOST WHILE IN TRANSIT | WELOPED LI<br>MILE IN TO | LAKAGE OF<br>LANS 17 FO             | MTDA.      | OF HTDRAULIC FLUID AR<br>FOR FAILURE AIMLTSID.   | ····        |
| CORRECTIVE ACTION-NOME.                                                                      | PAILINE ANALYSIS HAS NOT PERFORMED.                                                                                                                                                                                                                                                                                                        |                                                                                  |                          |                                     |            |                                                  |             |
| HTDRAULIC-A/B<br>BUSTAINER/VERNIER                                                           | W-IEEE-GOOI-9-GIO<br>Valve, bafety Relief                                                                                                                                                                                                                                                                                                  | UTP-PRT<br>£7-06568-1                                                            | 1010161                  | OTHER                               | 5 9        | BENBOW                                           | •• 70 ••    |
| FAILURE MODE-OUT OF SPE<br>/MIM. MEASURED LEAKAGE M<br>F PRI. REF. FPR-4138.                 | FAILURE MODE-OUT OF SPECIFICATION. PART 8/N 310-0757, THE ALLOMBLE FLOW OR LEAKAGE RATE AT RESEAT PRESSURE IS 8 CC/MIN. DIFTERENTIAL OR RESEARE WAS 25.8 CC/MIN. DIFTERENTIAL OR RESEAT PRESSURE WAS 2150. FAILURE MOTED AT CONCLUSION OF PRIT. REF. FPR-4138.                                                                             | ILIOMBLE FLOW OR LE                                                              | AKAGE RATI<br>O PSID. P. | E AT RESC                           | 14 DI      | ESSURE 18 6 CC<br>7 CONCLUSION O                 |             |
| CORRECTIVE ACTION-REF. 6 CC/NIN TO 30 CC/NIN.                                                | CORRECTIVE ACTION-REF. FR 634-2-146: ECP 7643 SUBMITTED REVISING SPECIFIED ALLOMBLE RESEAT PRESSURE FLOW RATE FROM<br>6 CC/Hin to 3d CC/Hin.                                                                                                                                                                                               | HEING SPECIFIED ALL                                                              | CHALE RE                 | KAT MES                             | 300        | A COM RATE FROM                                  |             |
| HTDAALLIC-A/B                                                                                | A-98-04-4688-F<br>ACTUATOR O-RING                                                                                                                                                                                                                                                                                                          | FAR<br>E7-65312-605                                                              | M.<br>640127             | <b>.</b>                            | 50         | VES LIGHEL PACIFIC                               | ***         |
| FAILUKE MODE-OUT OF TOL<br>SCAL AT STATIC PRESSURE<br>MANUFACTUKED THE O-RINNS<br>D DEFECTS. | FAILUKE MOE-OUT OF TOLERANCE. THIS VERNIER BERVOCYLINDER ASBENGLY REPORTEDLY LEAKED MYDRAULIC PLUID PASY THE SHAFT SEAL AT STAIL OF STAIL OF SAULITY O-RINGS. BYILLMAN RUBBER LANGACTUKED THE O-RINGS. BANCHASSER LANGE THE O-RINGS IN 1863. DEPECTS APPEARED TO BE DUE TO WOLE LAGS. LOGGE PLABMING, DIRTY MOLDS, OR OTHER MOLIS DEFECTS. | ISSEMENT REPORTEDAY ATTRIBUTED IT TO F TO HOLE LAGS, LOOR                        | LEARED NY<br>COR SUML!   | MANUELLE P<br>17 O-RING<br>15 DIRTY | 15. 9T     | PAST THE SHAFT<br>SLEINAN RUBBER<br>OR OTHER HOL |             |
| CORRECTIVE ACTION-ASTRONAUTICS PRODUCT E-DOT IDENTIFICATION NENE 30 IDENTIFIED.              | ON-ASTROMAUTICS PRODUCT SUPPORT CENTER REVIEWED THEIR STOCK TO ENSURE THAT ALL O-RIMES REQUIRING BLU<br>TICH NEKE SO IDENTIFIED.                                                                                                                                                                                                           | NED THEIR STOCK TO                                                               | ENBURE TA                | 11 ALL 9                            |            | REGULATING BLU                                   |             |
| HTDAA:A:C-A/B<br>BUSTAIMER/VERM!ER                                                           | BEGISOS.S<br>HTDRAULIC PLEX HOSE ABBY.                                                                                                                                                                                                                                                                                                     | UTP-PRT<br>R7-00371-48                                                           | <b>2018</b>              | OTHER                               | ភ្នំ ខ្ន   | 763 AEROQUIP<br>NO 677025-6-0161                 | 497037      |
| PAILURE MODE-OUT OF TOL                                                                      | FAILUME MOE-OUT OF TOLEAANCE. DURING INITIAL ACCEPTANCE TEST THE LEMSTM OF MOJE MEABURED 18:034 INCM. REQ. 18 10:3<br>I Plus on himus 0:123 inches. Rey. PPR NR P-4237 P 8/N 305-4486.                                                                                                                                                     | 187 THE LEWSTH OF HC<br>1486.                                                    | or masur                 | 3                                   | 1864       | . AC4. 15 10.1                                   |             |
| COARECTIVE ACTION-UNIT                                                                       | ON-UMIT REPLACED WITH OME OF CORRECT LEMBIN. TEBTING CONTINUED.                                                                                                                                                                                                                                                                            | TESTING CONTINUED.                                                               |                          |                                     |            |                                                  |             |

|                                                                                 | DIFFICUATIES REVIEW-                                                                                                                                                                                                                                                                                               | DIFFICULTIES REVIEW-HYDRAULIC SYSTEM-AIRBORNE                  | ¥                          |                   |            |                        |                                       |                                                                                                                 |
|---------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------|----------------------------|-------------------|------------|------------------------|---------------------------------------|-----------------------------------------------------------------------------------------------------------------|
| <br>STSTEM<br>SUB-STSTEM                                                        | TEST/REPORT NUMBER<br>FAILED COMPOMENT NAME                                                                                                                                                                                                                                                                        | DIF DATA BOURCE<br>PART NUMBER                                 | VENICLE<br>DATE DIF        | 11 0 JH 1         | 9 0<br>2 2 | VENDOR I               | PRI VENDOR NAME<br>OTH VENDOR PART NO |                                                                                                                 |
| <br>HTDRAULIC-A/B<br>BUSTAINER/VERNIER                                          | ETAEBBB<br>VERNIER PLOM LIMITER VALVE                                                                                                                                                                                                                                                                              | UTP-PET<br>E7-04208-1                                          | 78107                      | 3/68              | 5 9        | VES STERER<br>NO 13000 |                                       | 1986                                                                                                            |
| FAILURE MODE-OUT OF TOL<br>BURING FLUID LOW TEMPERS                             | OF TOLERANCE. DURING P.E.T. TEST, PLON RATE (186 6PH VS. SPEC. OF 1.05 MIN.) WAS OUT OF TOLERANCE<br>Tenferature test. Refer to far 035, test specimen 8/N 206-1837.                                                                                                                                               | RATE (.86 GPH VS. SPE!<br>  SPECINEN S/N 206-155               | c. of 1.66<br>?.           |                   | 8          | <b>8</b><br>5          | ERANCE                                | on the second second second second second second second second second second second second second second second |
| CORRECTIVE ACTION-ECP 1                                                         | CORRECTIVE ACTION-ECP 7888 SUBMITTED TO RELAK SPECIFICATION LIMITS.                                                                                                                                                                                                                                                | TON LIMITS.                                                    |                            |                   |            |                        |                                       |                                                                                                                 |
| <br>HYDRAUL IC-A/B<br>BUSTAINER/VERNIER                                         | A-98-04-4690-F<br>ACTUATOR ASSEMBLY, O-RING                                                                                                                                                                                                                                                                        | FAR<br>27-65312-605                                            | %<br>\$401 <b>22</b>       | 5                 | \$ Q       | 13061                  | YES LICHEL PACIFIC 893957             | •                                                                                                               |
| FAILURE MODE-EXTERMAL I<br>TIC PRESSURE, AMALYSIS (<br>MICH MAY HAVE CONTRIBUTI | FAILURE MOSE-EXTERMAL LEAR. THIS VERNIER SERVOCYLINGER REPORTEDLY LEAKED HYDRAULIC PLUID PAST THE SAMFT SCAL AT STA<br>TIC PRESSURE. AMLYSIS DID NOT CONFIRM THE REPORTED FAILURE. MOMEVER, THERE WAS SOME CONTANINATION IN THE ACTUATOR W<br>HICH MAY HAVE CONTRIBUTED TO LEARAGE AT THE SITE.                    | IEPONTEDLY LEAKED HYDR<br>AE, HOÆVER, THERE W                  | AULIC PLUID<br>B BONE CONT | PAST TH           | # # #      | FT BEAL                | BMFT BEAL AT STA<br>IN THE ACTUATOR W | *****                                                                                                           |
| CORRECTIVE ACTION-NOME.                                                         | CORRECTIVE ACTION-MOME, PAILUNE NOT CONFIRMED.                                                                                                                                                                                                                                                                     |                                                                |                            |                   |            |                        |                                       |                                                                                                                 |
| HYDRAUL IC-A/B<br>BUSTAINER/VERMIER                                             | LV-99-04-4633-F<br>BUSTAINER ACTUATOR ASSENDLY                                                                                                                                                                                                                                                                     | FAR<br>27-05314-617                                            | 3500<br>\$401£0            | FACTORY           | ž Q        | LIONEL                 | YES LIONEL PACIFIC<br>NO              | 997200                                                                                                          |
| FAILURE MODE-LEAR EXTER<br>COLIE THE PISTON, MITH I<br>ESTING.                  | FAILURE MODE-LEAR EXTERNAL-SUSTAINER SERVO CYLINDER ASSENELY MAS REPORTEDLY LEARING HYDRAULIC FLUID, AT THE END OPP<br>BAITE THE PISION, MITH 3000 PSIG APPLIED. REPORTED FAILURE MAS NOT CONFIRMED AFTER POUR DAYS OF HYDRAULIC PAESSUME T<br>STING.                                                              | DELY MAS REPORTEDLY L.<br>HE MAS NOT CONFIDMED A               | EALING HYDA<br>Figa Pour D | AULIC PLANTS OF H | UID.       | AT THE<br>LIC PAG      | END OPP<br>ESSURE T                   |                                                                                                                 |
| CORRECTIVE ACTION-FACTOR CONE CONE FROM ANOTHER CONE OF VETHER CORRECTIVE ACT   | CORRECTIVE ACTION-FACTORY PERSONNEL MERE NOTIFIED THAT THE PAILURE HAS NOT CONFIRMED, AND VISIBLE LEARAGE COULD HAV<br>E come from another component, funther investigation revealed no learage has been visible on the replacement part, n<br>o further corrective action is considered necessary, 3500 has 1370. | THE FAILURE HAS NOT CO<br>TALED NO LEAKAGE HAS D<br>THAS 1570. | W IGHED, AN<br>EEN VISIDLE | 0 V1819L          | 32         | RAGE CC<br>CEMENT      | PART. N                               |                                                                                                                 |
| <br>HTDRAULIC-A/B<br>BUSTAINER/VERNIER                                          | M-1222-6001-5-010<br>Valve, Bapety Reliep                                                                                                                                                                                                                                                                          | UTP-PRT<br>R7-06569-1                                          | <b>64</b> 01 <b>£</b> 0    | OTHER             | 20         | 763 BENBOK<br>NO 92120 |                                       | <b>89</b> 704£                                                                                                  |
| FAILURE MODE-INTERNAL LEAK.<br>MIM. FAILURE OCCURRED DURING                     | FAILUME MOGE-INTERMAL LEAK. PART BYNBIG-0787, INTERNAL LEAKAME AT 3000 PBIB MAB B.S CC/HIM. ALLOMABLE LEAKAME, RCC/<br>HM. Failume occumred during initial acceptance test Proof Cycle. PPR 4129.                                                                                                                  | LAKASE AT 3000 PBID W<br>F CYCLE: FPR 4120.                    | AB 8.8 CC/H                | HR. ALLO          |            | LEARA                  | H. 866/                               |                                                                                                                 |
| CORRECTIVE ACTION-REP.                                                          | CORRECTIVE ACTION-REF. FR 654-E-148, ECP 7645 SUBMITTED CHANGING SPECIFICATION LEARAGE RATE FROM E TO 20 CC/MIN.                                                                                                                                                                                                   | CHANGING SPECIFICATIO                                          | H LEARABE A                | ATE FROM          | 2          | 99 CC                  | AIR.                                  |                                                                                                                 |

|                                                                         | VEHICLE BITE PR. VENDOR MANE<br>BATE BIP TIME BIF OTH VENDOR PART NO | PACTORY TES LIGHEL PACIFIC 888884             | PAILUME MOG-EXTERMAL LEAKAGE, LEAKED HYDRAULIC OIL PABT THE LEVER PIN PLUG. CAUSE, INCORRECT RENORK OF THE LEVER P<br>N POAT BY THE VENDOR. THREADS HAD BEEN DAMAGED AND DEPTH ALTERED BY REMORR. O-RIMS BEALING URB NOT COMPLETE. | CORRECTIVE ACTION-CONFIRMED. VENDOR REPLY TO RAK LV-80-D4-3050, RECEIVED MARCH EG. 1964 STATES THAT MEW PROCEDURES<br>ERE IMPOSED TO PREVENT RECURRENCE OF THE PAILURE HODE. NOTE-350D RENORRED PROM 1870. | PACTORY YES LICHEL PACIFIC SSIESS           | FAILURE MODE-LEAK-EXTERNAL. THIS VERNIER BERVOCYLINDER ASSENSLY LEAKED MYDRAULIC PLUID FROM THE MALL ADJUSTMENT BCR<br>Em with 3300 psig applied. Failure was attributed to a danaged o-rimg. Assensly of the mall adjustment medge is such<br>That o-rimg danage cam easily occur. | CORRECTIVE ACTION-ASTROMUTICS PRODUCT SUPPORT CENTER ASSENSLY PERSONNEL NEWE MAINED OF THE POSSIBILITY OF DAMASIMS. THE O-TIME AND NEME INSTRUCTED TO TAKE EXTRA CARE MAINE ASSENSLING THE ADJUSTMENT NEDGE. | PACTORY NO VINSON 686816<br>NO A-60138-1 |                                                                                          |                                                   | 60/C TES LIGHEL PACIFIC 887177<br>NO LIGHEL-PACIFIC 841377<br>8423-103 | FAILURE MODE-BIRUCTURAL, DURING INITIAL PROOF CYCLE DURING PET TEBT. THE PIBTOM MAS LOCKED IN THE MID-POSITION MITH<br>THE RETURN POAT VENTED TO THE ATMOSPHERE. THE FLOW RATE MAS 1.46 PMM ISPECIPICATION 1.15 GPM) IN THE EXTEND BIRECTI<br>M. THIS MONLD MOT EFFECT FLIGHT RESPONSE. | CORRECTIVE ACTION-THE VEMOOR IS TAKING ACTION TO CORRECT THE SOUNCE OF LEARASE. STREED TESTING WOULD BETTELL ANT SA |
|-------------------------------------------------------------------------|----------------------------------------------------------------------|-----------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|------------------------------------------------------------------------------------------|---------------------------------------------------|------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|
| 787EN-A1ABOANE                                                          | DIF DATA BOURCE VEHICLE<br>PART NUNGE DATE DI                        | 3500<br>11-609 64C116                         | PIN PLUG. CAUSE. II<br>7 RENORA: O-RING BEJ                                                                                                                                                                                        | LEINLD MARCH EG. 184<br>EWORKED FROM 1870.                                                                                                                                                                 | 112F<br>11-607 640117                       | INED HYDRAULIC PLUIS<br>46. ABSEMBLT OF THE                                                                                                                                                                                                                                         | DOWEL NEWE WARNED O                                                                                                                                                                                          | 8960<br>70-1 640116                      | RENOWED PROH HIBBIT                                                                      |                                                   | 911apa 4-11                                                            | T. THE PISTON MAS LI                                                                                                                                                                                                                                                                    | I OF LEAKABE, BYBTE                                                                                                 |
| CONTAIN DIVISION DIVISION DIFFICULTIES REVIEW-HYDRAW-IC SYSTEM-AIRSORME | MANE DIF G                                                           | PAR<br>7-106 87-83311-809                     | OIL PAST THE LEVER<br>AND DEPTH ALTERED BY                                                                                                                                                                                         | IC LV-98-D4-3889, RE<br>IE MODE, NOTE-8500 A                                                                                                                                                               | FAR<br>1146 E7-05311-007                    | TYLINDER ABBENGLY LE<br>ED TO A DANGED O-RII                                                                                                                                                                                                                                        | CENTER ASSENDENT PERING                                                                                                                                                                                      | FAR<br>87-06570-5                        | DATE EMINED, VALVE                                                                       | e.                                                | UIP-PET<br>UIPALY, ORIFE R7-0456                                       | TCLE DURING PET TES<br>FLOW RATE WAS 1.46 P                                                                                                                                                                                                                                             | TO CORRECT THE BOUNC                                                                                                |
| 014716067161                                                            | TEST/AEPONT HUMBEN<br>PAILED COMPONENT NAME                          | LY-88-04-4441F<br>VERNIER ACTUATOR, PORT PLUS | PAILUME HODE-EXTERMAL LEAKAGE, LEAKED HYDRAULIC OIL PABT THE LEVER PIN PLUG. CAUSE, INCORRECT RENORK OF THE<br>In Port by the Vendor, Threads had been damaged and depth altered by Renork, O-Ring bealing was NOT COMPLETE.       | CORRECTIVE ACTION-CONTINED. VENDOR REPLY TO RAK LY-88-D4-8888; RECEINLD MARCH E8: SI<br>Mere imposed to prevent recurrence of the Pailure Mode, Note-8500 rewored From 1870.                               | A-AP-04-4703-F<br>ACTUATOR ASSEMBLY, O-RIME | ERIAL. THIS YERNIER BERYCO<br>IED. FAILURE WAS ATTRIBUTE<br>M EASILY OCCUR.                                                                                                                                                                                                         | CORRECTIVE ACTION-ASTROMUTICS PRODUCT SUPPORT CENTER ASSENDLY PERSONNEL NEWE MAINED OF THE O-TIME AND NERE INSTRICTED TO TAKE EXTRA CARE WHILE ASSENDLING THE ADJUSTMENT MEDGE.                              | LV-80-10-835-C<br>RELIEF VALVE           | FAILURE MODE-OUT OF BPECIFICATION. RUBBER CUME DATE EMPIRED, VALVE REMOVED PROM NIBBILE. | CORRECTIVE ACTION-NO FAILURE. ANALYBIB CANCELLED. | ETAZEDA<br>BUSTAINCR ACTUATOR ASSEMBLY, ORIFI ET-GESES-B<br>CE         | AL. DURING INITIAL PROOF (<br>D TO THE ATMOSPICAE, THE I                                                                                                                                                                                                                                | VENDOR 18 TAKING ACTION                                                                                             |
| *****                                                                   | STSTEN<br>SUB-STSTEN                                                 | HTDRAULIC-A/B<br>BUSTAINER/VERNIER            | FAILURE HODE-EXTERNAL<br>IN PORT BY THE VENDOR.                                                                                                                                                                                    | CORRECTIVE ACTION-COM                                                                                                                                                                                      | HTDRAULIC-A/B<br>SUSTAINER/YERNIER          | FAILURE MODE-LEAR-EXTERNAL, THIS VERI<br>EW WITH 3000 PSIG APPLIED. PAILURE WAI<br>THAT O-RIMG DAMAGE CAN EASILY OCCUR.                                                                                                                                                             | CORRECTIVE ACTION-AST                                                                                                                                                                                        | HTDRAULIC-A/B<br>BUBTAINER/VERNIER       | FAILURE MODE-OUT OF BE                                                                   | CORRECTIVE ACTION-NO                              | HYDRAULIC-A/B<br>BUSTAINER/VERHIER                                     | FAILURE MODE-STRUCTURAL. DURING INITIAL PO<br>THE RETURN PCAT VENTED TO THE ATMOSPHERE.<br>ON. THIS MOULD MIT EFFECT FLIGHT RESPONSE.                                                                                                                                                   | CORECTIVE ACTION-INE                                                                                                |

SCHERAL BYNAMICS CONVAIR BIVISION

18 JUN 1986

|                                               | ă.                                                                   | 1916                                                               | ANPC<br>R8T-                                                                                                                                                                                                                                                                                 | Der E                                                                                                                                                                                                                                                        | •                                    | 25<br>25<br>25                                                                                                                                                                                                                                                                                 | ٤                                                                                                                                          | ***************************************    | <b>8</b>                                                                                                                                                                               |                                                                                                                                                           | 1716                                                               |
|-----------------------------------------------|----------------------------------------------------------------------|--------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|
|                                               | VENDOR MANE                                                          | YES LIGHEL PACIFIC<br>NO                                           | 0.16 MILLI<br>M OF THE FIL                                                                                                                                                                                                                                                                   | MED AND REM<br>MTROLS TO AS                                                                                                                                                                                                                                  | YES CRESCENT<br>NO MC-679-4E         | 12 OF 100 M                                                                                                                                                                                                                                                                                    | M PIX IF AN                                                                                                                                | VES CRESCENT<br>NO MC-108-4E               | KE (READING                                                                                                                                                                            | STERE SERVE                                                                                                                                               | YES LIGHEL PACIFIC<br>NO                                           |
|                                               | VEHICLE BITE PRI VENDOR NAME<br>DATE DIP TIME DIP OTH VEHOOR PART NO | PACTORY YES                                                        | B A POSITIVE<br>CONTANINATIO                                                                                                                                                                                                                                                                 | OVALVES CLEA<br>D TIGHTER CO                                                                                                                                                                                                                                 | 60/C YES                             | E REQUIRENEM                                                                                                                                                                                                                                                                                   | POUND. VENDO                                                                                                                               | 60/C VES                                   | T OF TOLERAN                                                                                                                                                                           | Poute. LOT 8                                                                                                                                              | FACTORY YES                                                        |
| ¥                                             | VEHICLE<br>DATE DIF                                                  | 040110                                                             | CURRENT MA                                                                                                                                                                                                                                                                                   | POCEDURE AND                                                                                                                                                                                                                                                 | 940114                               | DINILAR FAIL                                                                                                                                                                                                                                                                                   | POTTING COM                                                                                                                                | 640114                                     | TANCE WAS QU'                                                                                                                                                                          | 7011116 COM                                                                                                                                               | 211079<br>640118                                                   |
| IULIC BYSTEM-AIRBO                            | DIF DATA SOUNCE<br>PART NUMBER                                       | FAR<br>27-8814-829                                                 | DOP BOS.9 THE MUL.                                                                                                                                                                                                                                                                           | AFTER JULY 1963 I                                                                                                                                                                                                                                            | UTP-PET<br>87-04211-1                | TO MET INSULATION INSULATION TEST. 4                                                                                                                                                                                                                                                           | ALUG AND VOIDS IN                                                                                                                          | UTP-PET<br>87-04804-1                      | INSULATION RESIST<br> }.                                                                                                                                                               | PLUS AND VOIDS IN                                                                                                                                         | FAR<br>27-65514-619                                                |
| DIFFICULTIES REVIEW-HYDRAULIC SYSTEM-AIRBORNE | TEST/REPORT NUMBER FAILED CONFORENT NAME                             | FAR A-09-04-4630-F FAR ACTUATOR ADDENOLY, DERVO ET-88354-0E8 VALVE | FAILURE MODE-CONTANIMATION. DURING INSPECTION CHECKOUT PER EOP 805.9 THE MULL CURRENT WAS A POSITIVE 0.16 HILLIANFE<br>Re. Mull current allomed is Plus or minus 0.05 ma. Failure is attributed to the combined contamination of the Pirst-<br>Stake dropping orifice and the Mozzle Screen. | CORRECTIVE ACTION-CADILLAC GAGE INITIATED CORRECTIVE ACTION AFTER JULY 1963 FOR ALL BERNOVALVES CLEANED AND RENORKE<br>D because of cristalline particulate contamination, including a new cleaning procedure and tighter controls to assur<br>E compliance. | E7A303E<br>FEEGACK TRANSDUCER        | FAILURE MOE-OFEN (ELECT). DURING PET 1831, SPECIMEN FAILED TO MEET INSULATION MESISTANCE REGUIREMENTS OF 100 MECON<br>MS. TEST SPECIMEN S/N 306-1088 READ ONLY S MECOMUS FOLLOWING INMERSION TEST. BINILAR FAILURE OCCURED 1/17/64 ON 1EST<br>SPECIMEN, S/N 310-1123 LOT 28, REFER TO FAR 185. | CORRECTIVE ACTION-FAILURE AMALYSIS MEVEALED LEAKING AROUND PLUG AND VOIDS IN POTTING CONFOUND. VENDOR FIX IF AN EFO<br>T SEAL IS REQUIRED. | 273158<br>Servo Valve, Peedback Transducer | FAILURE MODE-OUT OF TOLERANCE, DURING P.E.T. INNERBION TEST INGULATION RESISTANCE MAS OUT OF TOLERANCE (READING EG<br>Megohhs), refer to far 136. Test Bpecinen B/N 309-1394 (Lot 24), | CORRECTIVE ACTION-FAILURE ANALYSIS REVEALED LEAKING AROUND PLUG AND VOIDS IN POTTING COMPOUND. LOT 24 NAS REJECTED.<br>VENDOR TO CHANGE TO AN EPOXY SEAL. | LV-AB-D4-4848-F<br>BUSTAINER ACTUATOR ASSEMBLY, O-RIN E7-65514-619 |
| 9941 MOP 41                                   | SVSTEM<br>SUB-STREM                                                  | HYDRAULIC-A/B A BUDTAINER B                                        | FAILURE MODE-CONTANINATION, DURING INSPECTION RE. MULL CURRENT ALCONED IS PLUS OR MINUS 0.01 STAGE DROPPING ORIFICE AND THE MOZELE SCREEN.                                                                                                                                                   | CORRECTIVE ACTION-CABILLAC<br>B BECAUSE OF CRYSTALLINE PA<br>E COMPLIANCE.                                                                                                                                                                                   | HYDRAULIC-A/B<br>Bustainer/Vernier F | FAILURE MODE-OPEN (ELECT). DURING PET TEST, SPEC.<br>No. TEST SPECIMEN S/N 306-1088 READ CALT S NEGONA<br>SPECIMEN, S/N 310-1123 LOT 28, REFER TO PAR 185.                                                                                                                                     | CORECTIVE ACTION-FAILURE<br>AT SEAL IS REGUIRED.                                                                                           | MTDRAULIC-A/B<br>Bustainer/Vernier B       | FAILURE MODE-OUT OF TOLERA<br>MEGOHHS). REFER TO FAR 136.                                                                                                                              | CORRECTIVE ACTION-FAILURE ANALYSIS VENDOR TO CHANGE TO AN EPOXY SEAL.                                                                                     | MYDRAULIC-A/B<br>BUSTAINER/VERNIER B                               |

FAILURE MODE-LEAK EKTERMAL-SUSTAINER SERVO CYLINDER ASSY REPORTEDLY FAILED WHEN HYDRAULIC CIL MAS FOUND TO BE LEASI NG FROM THE AFT MOUSING GLAND MUT OF THE SERVO CYLINDER, FAILURE WAS CAUSED BY THE USE OF SUBSTANDARD O-RINGS, THE O -RINGS MERE IMPROPERLY MOLDED, SUBSTANDARD O-RINGS MENE INSTALLED DURING RENORR OF THE SERVO CYLINDER ASSY.

COMMECTIVE ACTION-60/C BUALITY CONTROL TOOK CORRECTIVE ACTION. EFFECTIVE PERSUARY 18: 1964: ALL O-RINGS USED IN ACT

<

|                  |                                               |                                             |                                                              | • 2020                                                 |                                                                                                                                                                                                         |                                                                                                                                                                                                                    | * 1.1                                                               |                                                                                                                                                                       |                                                                                                                                                        | 180800                                                 | _                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                  |                                                      |
|------------------|-----------------------------------------------|---------------------------------------------|--------------------------------------------------------------|--------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|
|                  |                                               | VENDOR MANE                                 | ECTD.                                                        | WD FIGHEL PACIFIC                                      | . CAUSE OF FAIL                                                                                                                                                                                         | MED IN ACTUATOR                                                                                                                                                                                                    | TES LICHEL PACIFIC                                                  | ATOR DAIVE RACK                                                                                                                                                       | 65 LIONEL PACIF<br>ED INSPECTION O                                                                                                                     | TES LIGHEL PACIFIC                                     | RACK WHEN THE U                                                                                                                                                                                                                                       | IN THE ACTUATOR<br>EMENT.                                                                                                                                                                                                        | VES LICHEL PACIFIC                                   |
|                  |                                               | 11 ME DIF OTH                               | DED DEF                                                      |                                                        | ACSUME                                                                                                                                                                                                  | RINGS C                                                                                                                                                                                                            |                                                                     | AE ACTU                                                                                                                                                               | EG. 18<br>IMPROV                                                                                                                                       |                                                        | DRIVE<br>EET ELO                                                                                                                                                                                                                                      | s used                                                                                                                                                                                                                           | <u> 5</u> 8                                          |
|                  |                                               |                                             | HER NO.                                                      | PACTORY                                                | TATIC P                                                                                                                                                                                                 | ALL OF                                                                                                                                                                                                             |                                                                     | 5<br>M                                                                                                                                                                | E MARCH                                                                                                                                                | COMPLEX                                                | CTEATOR OF TOTAL                                                                                                                                                                                                                                      | O-R186<br>CT TH18                                                                                                                                                                                                                | <b>5</b>                                             |
|                  | <b>S</b> ME                                   | WENICLE<br>DATE DIF                         | AND OT                                                       | 211079<br>640118                                       | . MUT AT 8                                                                                                                                                                                              | E 640212.<br>THER DEFE                                                                                                                                                                                             | 1990                                                                | #DUCER 81(                                                                                                                                                            | EPFECTIVITURED BEF                                                                                                                                     | 1940                                                   | OF THE A                                                                                                                                                                                                                                              | PECTO ALL<br>NOT REPLE                                                                                                                                                                                                           | 2010<br>4010                                         |
| *0191            | AULIC STSTEM-AIRBO                            | DIF DATA BOUNCE<br>PART NUMBER              | OF VOIDS, HOLD LAPS, AND OTHER HOLDED DEFECTS.               | FAR<br>27-05314-010                                    | NO CYLINDER GLAND<br>DR BIDES OF O-RING                                                                                                                                                                 | . EFFECTIVE ON DATE.                                                                                                                                                                                               | FAR<br>87-65512-605                                                 | OLL FROM THE TRANTO OFFI                                                                                                                                              | ACTION SEFORE THIS FAILURE, EFFECTIVE MARCH ED, 1945 LIONEL PACIF<br>FAILED ACTUATOR WAS MANUFACTURED BEFORE THE IMPROVED INSPECTION OF PROVENENT.     | FAR<br>87-65318-605                                    | AC TRANSDUCER BIDE<br>AC ACTUATOR. BIN G                                                                                                                                                                                                              | LICHEL PACIFIC, INSPECTS ALL C-RIMSS USED IN THE TO THIS DATE IT DID NOT REPLECT THIS IMPROVEMENT.                                                                                                                               | FAR<br>E7-8531E-805                                  |
| CONVAIN BIVIBION | DIFFICULTIES REVIEW-HYDRAULIC STRTEM-AIRBORNE | TEST/REPORT NUMBER<br>FAILED COMPONENT NAME | WIONS WILL DE INSPECTED, UNDER MACHIFICATION, POR EVIDENCE O | FAR<br>SUSTAINGR ACTUATOR ASSEMBLY, O-RIN 27-85314-819 | FAILURE MODE-EXTERNAL LEARAGE, LEARED HYDRAULIC OIL PAST SERNO CYLINDER GLAND MUT AT STATIC PRESSURE. CAUSE OF PAIL<br>Ure has use of substandard o-ring molds mad alloned defects on sides of o-rings. | CORRECTIVE ACTION-CONFIRMED. IN A REPLY TO RAR-A-80-04-3838, EFFECTIVE ON DATE 640212, ALL O-RIMES UBED IN ACTUATOR<br>8 WILL BE INSPECTED UNDER NAGHIFICATION FOR EVIDENCE OF VOIDS, NOLD LAPS AND OTHER DEFECTS. | LV-98-24-4860-F<br>VERNI'IR ACTUATOR ASSENDLY, O-RINGS E7-85312-805 | K LXTERNAL-ASSEMBLY WAS FOUND TO BE SEEPING OIL FROM THE TRAMBDUCER SIDE OF THE ACTUATOR DATHE RACES GIMDALED BY HAND. LEARAGE WAS ATTRIBUTED TO SUBSTANDARD OFRINGS. |                                                                                                                                                        | FAR<br>VERHIER ACTUATOR ASSEMBLY, O-RIMES 27-05312-005 | ERNAL LEAKAGE. HYDRAULIC OIL SEEPAGE FROM THE TRANSDUCER BIDE OF THE ACTUATOR DRIVE RACK WHEN THE U<br>By Mand, cause was substandard offings in the actuator. Bix offinss bid not heet elongation resuire<br>' These nere too hard and undesponsive. | CORECTIVE ACTION-FAILURE CONFISHED. THE ACTUALUM: VENDOR, LICHEL PACIFIC, INSPECTS ALL O-RIMSS USED IN THE ACTUATOR<br>Effective on date 630320. SINCE THE UNIT MAR MADE PRIOR TO THIS DATE IT DID NOT REPLECT THIS INPROVENENT. | LV-80-04-4586-F<br>VERNIER ACTUATOR ASSEMBLY, PISTON |
| 9991 WAY ST      |                                               | 3737EM<br>308-3737EM                        | MATORS WILL UE INSPECTED.                                    | HYDRAULIC-A/B<br>Bubtainer/Vernier                     | FAILURE MODE-ENTERNAL LEA<br>URE MAS USE OF SUBSTANDARD                                                                                                                                                 | CORRECTIVE ACTION-CONFIRM<br>B WILL BE INSPECTED UNDER                                                                                                                                                             | HYDRAUL IC-A/B<br>BUSTAINER/VERMIER                                 | FAILURE NODE-LEAK LYTERNA<br>MHEN THE UNIT WAS GINDALE                                                                                                                | CORRECTIVE ACTIOND/C OBTAINED VENDER CORRECTIVE IC INSPECTS ALL O-R NGS USED IN VERNIER ACTUATORS. F THE INTERNAL O-RI6-S AND MOULD NOT REFLECT THE IN | HTDRAULIC-4/8<br>Bustainea/Vermier                     | FAILURE HODE-EXTERNAL LEA<br>NIT 1443 GINDALED BY HAND.<br>NENTS AND FOUR OF THESE NE                                                                                                                                                                 | CORRECTIVE ACTION-FAILURE                                                                                                                                                                                                        | MYDRAULIS-A/B<br>Bubtainer/Vermier                   |

FAILUME MODE-LEAK EXTERNAL, VERNIER ACTUATOR UAS FOUND LEAKING PART BOTM ACTUATOR SMAFT BEAL WHEN THE UNIT WAS MAND GIMBALLED. THE FAILURE WAS CAUSED BY GALLING OF THE FISTON LANDS, AND SHREDDING THE BEALING O-RINGS. GALLING OF THE FISTON LANDS WAS DUE TO THE LACK OF CHRONE PLATING REQUIRED FOR SPECIFIC PISTON A EAS. PAILURE MOULD NOT MAY, OCCUR AED IF THE INHERT OF LCPISAT HAD BEEN CARRIED TO CONFLETION.

SCHERAL BYNAHICS

10 204 1966

| _ |                                                                                                                    | THE METER AND AND AND AND AND AND AND AND AND AND                                                                                                                                                                                                                    | CAULIC BIBIRS ALROC                                                                                                                                                              | , Marie                                   |                 |          |                                |              |
|---|--------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|-----------------|----------|--------------------------------|--------------|
|   | STSTEN<br>SUB-STSTEN                                                                                               | TEAT/REPORT MUMBER<br>FAILED COMPOMENT MANE                                                                                                                                                                                                                          | DIF DATA BOUNCE<br>PART NUMBER                                                                                                                                                   | VENICLE SITE PRI<br>DATE DIF TIME DIF OTH | 811E<br>THE DIF | 9 0 m    | VENDOR MANE                    |              |
|   | CORRECTIVE ACTION-REPAIR<br>THE REQUIRED CHRONEPLATE.                                                              | CORRECTIVE ACTION-REPAIR FACILITY INSPECTION PERSONNEL MERE INSTRUCTED TO CLOSELY INSPECT ALL ACTUATOR PISTONS FOR<br>HE REQUIRED CHRONEPLATE.                                                                                                                       | E INSTRUCTED TO CLO                                                                                                                                                              | <b>6ELY 116PE</b> C                       | T ALL AC        | <b>3</b> | M PISTONS FOR                  | :            |
|   | MYDRAUL IC-A/B<br>BUSTAINER/VERNIER                                                                                | LY-90-04-4592-F<br>ERNIER ACTUATOR ASSENDLY                                                                                                                                                                                                                          | FAR<br>27-65312-605                                                                                                                                                              | 2450<br>251218                            | 5               | ÷ 8      | YES LICHEL PACIFIC             | •            |
|   | FAILURE MOE-LEAR EXTERNAL.  E. OIL MAS APPAENTLY CONING PARKING ON ONE O-RING HAD THE TIME AT WIR CAUSING LEAKAGE. | R EXTERNAL, IT WAS REPORTED A SMALL PUDDLE OF<br>NYLY COMING PROM THE ACTUATOR SMAFT, REPORTED<br>HING HAD THE APPEARANCE OF PAINT AND MAY MANE<br>NG LEARAGE.                                                                                                       | OF OIL WAS COSERVED ON THE FLOOR UNDER THE VERHIER ENGIN<br>TED FAILURE WAS UNCONTRINED BY PAILURE AMLYSIS TESTING.<br>IVE BEEN A PAINT PARTICLE LODGED ON THE O-RING DURING TES | D ON THE FL<br>OWTHRED BY<br>RTICLE LODG  | COR UNDER       | # 4 0    | VERNIER ENGIN<br>Taid Texting. |              |
|   | CORRECTIVE ACTION-WIR P<br>TAIMED IN THE MISSILE HY<br>ES AT THE:R FACILITIES.                                     | CORRECTIVE ACTION-WTR PEOPLE WERE INFORMED OF THE PEBULTS OF THIS AMALYSIS. THEY WERIFIED CLEAMLINESS WOULD SE MAIN<br>AINED IN THE MISSILE HYDRAULIC SYSTEM, WENDER, LICHEL PACIFIC, TOOK STEPS TO ELIMINATE POSSIBLE CONTAMINATION SOUNC<br>S AT THEIR FACILITIES. | OF THIS AMLYSIS. T                                                                                                                                                               | HET VERIFIE<br>ELIMINATE F                | D CLEAN.        | 1 ME 85  | MOULD BE MAIN                  |              |
|   | MYDRAULIC-A/B<br>SUSTAINER/VERNIER                                                                                 | LY-98-04-4598-F<br>VERNIER ACTUATOR ASSENDLY, MIPER                                                                                                                                                                                                                  | FAR<br>27-65312-605                                                                                                                                                              | 1980                                      |                 | 55       | YES LIGHEL PACIFIC             | 3            |
|   | FAILURE MODE-CONTAMINAT<br>STOM SMAFT SEAL. FAILURE                                                                | ITAMINATION-ACTUATOR OF VERNIER BERVOCYLINDER REPORTLY DEVELOPED A LEAK OF HYDRAULIC PLUID AT THE PI<br>FAILURE IS ATTRIBUTED TO /ELT CONTANINATION OF THE O-RING RESULTING IN A LOM-PRESSUME LEARAGE PATH.                                                          | ER REPORTLY DEVELOP<br>N OF THE O-RING RES                                                                                                                                       | ED A LEAK O                               | F HYDRAU        | CIC C    | LUID AT THE PI                 |              |
|   | CCARECTIVE ACTION-DESIGN.                                                                                          | CORRECTIVE ACTION-DESIGN GROUP RECOMEND AN IMPROVENENT, REPLACING THE PELT WITH TEPLON RINGS, ND OTHER ACTION TAKE                                                                                                                                                   | FRACING THE PELT IN                                                                                                                                                              | ETH TOTAGE                                | Aires.          | Ş        | EA ACTION TAKE                 |              |
|   | HYDRAULIC-A/B<br>SUSTAINER/VERNIER                                                                                 | MZ-A9-10-229-F<br>HYDRAULIC FLEXHORE, B-NUT                                                                                                                                                                                                                          | FAR<br>27-08573-47                                                                                                                                                               | 64400 0                                   | FACTORY         | 5        | VES AEROQUIP<br>677085-6-0140  | :            |
|   | FAILURE MODE-LEAK EXTER                                                                                            | a extermal. Learing at 8-mut end Pettens.                                                                                                                                                                                                                            |                                                                                                                                                                                  |                                           |                 |          |                                |              |
| 1 |                                                                                                                    | CORRECTIVE ACTION-FAILURE NOT CONFIRMED, 60/C ADVISED PERSONNEL TO WIPE MOSES CLEAN AND TO NATCH HOME CLOSELY TO VE<br>1877 Learage does exist prior to rejection.                                                                                                   | CHELL TO WEPE HORES                                                                                                                                                              | CLEAN AND                                 | 10 M            | ğ        | CLOBELT TO W                   |              |
|   | HYDRAULIC-A/B<br>BUBTAINER/VERMIER                                                                                 | LV-88-10-230-F<br>HTGRAULIC TUBE ASSEMBLY, 8-MUT                                                                                                                                                                                                                     | FAR<br>ET-66007-100                                                                                                                                                              | 1980                                      | CTA             | 88       | 3/ <b>9</b>                    | <del>}</del> |
| 1 | FAILURE MODE-STRUCTURAL                                                                                            | UCTURAL. BURING VIGUAL INSPECTION OF COUPLING MUT, MUT ON THE END OF THEE APPEARED TO BE CRACKED.                                                                                                                                                                    | ING NUT, NUT ON CHE                                                                                                                                                              | ENB 00 TM                                 | E APPEAR        | 8        | DE CRACKED.                    |              |
| _ |                                                                                                                    |                                                                                                                                                                                                                                                                      |                                                                                                                                                                                  |                                           |                 |          |                                | _            |

CONTAIN DIVISION

11 10H 1066

| 9901 207 81                                                               | DIFFICULTIES REVIEW-MTDRAULIC SYSTEM-AIRBORNE                                                                                                                                                                                                                      | RAULIC BYSTEN-AIRBON                        | Ä                                      |            |            |                              | ,           |
|---------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|----------------------------------------|------------|------------|------------------------------|-------------|
| 8757EH<br>816-5757EH                                                      | TESTARFOAT HUMSEN<br>PAILED COMPONENT NAME                                                                                                                                                                                                                         | DIF DATA BOUNCE<br>PART NUMBER              | VEHICLE<br>DATE DIF                    | 114E DIP   | 7 5<br>8 6 | VEHICLE BITE PRI VENDOR MANE |             |
| CORECTIVE ACTION-NO F                                                     | COKRECTIVE ACTION-NO FAILURE, BITE PERBONNEL INFORNED OF REBULTS OF ANALYBIS AND RECONNEND CLOSER EXAMINATION OF MU<br>BEFORE REJECTION.                                                                                                                           | IEDULTO OF AMILTOD A                        | MD RECOM                               | BID CLOSE  | Š          | HATION OF NU                 |             |
| HYDRAULIC-A/B<br>BUSTAINER/YERNIER                                        | LV-90-10-218-F<br>TUBE ASSEMBLT: 8-NUT                                                                                                                                                                                                                             | FAR<br>R7-65314-13                          | 3300                                   | 5          | 758 G0/C   | 9/0                          | •           |
| FAILURE MODE-OUT OF TO                                                    | FAILURE WOOK-OUT OF TOLERANCE, DINENSIONAL BIBCREPANCY AND SURFACE CONDITION MARE IT A SUBSTANDARD LIEM.                                                                                                                                                           | BURFACE CONDITION I                         | MAE 17 A (                             | Les Tarbal | £<br>9     | ż                            |             |
| CORRECTIVE ACTION-NO P                                                    | CORRECTIVE ACTION-NO FAILURE-60/C OBTAINED BUALITY CONTROL-AL", MUTS DINEMBIONALLY CHECKED.                                                                                                                                                                        | AL". HUTS DINENSION                         | ILY CHECK                              | ė          |            |                              |             |
| HTDRAULIC-A/B<br>SUSTAINET/VERNICR                                        | GBA3035<br>FLER HOME ASST.                                                                                                                                                                                                                                         | UTP-PET<br>87-06361-8                       | <b>C318</b> 10                         | CONVAIR    | 20         | VES TITEFLEM<br>NO 88832-5   | 0.00        |
| FAILURE MODE-LEAK-EXTE<br>6. REG. MO LEAKAGE. MER                         | FAILURE MOE-LEAK-EXTERNAL-DURING POST VIBRATION PROOF PRESSURE TEST THE UNIT LEAKED 1800/MIN. OF MATER AT 6000 PSI<br>6. Reg. Mo Leakage. Ref. FPR DR F-5040 BMT 8/N 307-0440.                                                                                     | LEBURE TEST THE UNIT                        | LEAKED 19                              | C/NIN. G   | ¥          | 14 AT 6000 PB1               | <del></del> |
| CORRECTIVE ACTION-NOM                                                     | CORECTIVE ACTION-MOME-UNIT DENOMBIRATED A MANGIN OF BAPETY PRIOR TO FAILUME. ACCEPT LOT 1. MEF. FRR FR 454-2-083.                                                                                                                                                  | IT PRIOR TO PAILURE.                        | ACCEPT LO                              | 1 1. 807.  | Ē          | 'R 654-2-093.                |             |
| HYDRAULIC-A/B<br>SUSTAINER/VERNIER                                        | ETASISS<br>VERNIER FLOM LINITER VALVE                                                                                                                                                                                                                              | UTP-PET<br>E7-04206-1                       | 631210                                 | y 93       | 28         | TES COMAIN<br>NO 1470-7      | 0           |
| FAILURE MODE-OUT OF TO<br>ECIFICATION OF 1.20 GP<br>CIMEN S/N 310-1038.   | FAILURE MODE-OUT OF TOLERANCE, BTATIC PLONIS.ES VB. BPECIPICATION OF S.EG GPN NAXIMUN) AND DYNAMIC FLONIS.ES VB. SP<br>ECIFICATION OF S.EG GPN MAXIMUN) MERE OUT OF TOLERANCE. BINILAR FAILURES OCCURRED GESEIG. REFER TO FAR 384. TEST BPE<br>CIMEN S/N 310-1038. | JICATION OF 1.80 6PM<br>HILM FAILURES OCCUM | MAXIMAN)                               | AEFER T    | IC FL      | 364. TEST 6AE                |             |
| CORRECTIVE ACTION-ECP 7696 SUBMITT<br>CE OF 27-34236-1. REFER TO PAR 378. | CORRECTIVE ACTION-ECP 7696 SUBHITTED TO RELAN SPECIFICATION LIMITS. ALSO: ACTION INITIATED TO DROP CONNIR AS A SOUN<br>E OF 27-34238-1. REFER TO FRR 378.                                                                                                          | 28 LIMITS. ALBO, ACT                        | ON INLTIA                              | 7E.0 70 DA | 8          | MIR AB A BOUN                |             |
| HTDRAIL IC-A/B<br>BUSTAINES/YESHIER                                       | A-AG-DA-AJ78-F<br>FEDBACK TARMBOUCER/VE ACTUATOR AS ET-BESSE-BOS<br>ST                                                                                                                                                                                             | FAR<br>18 E7-65318-608                      | ************************************** | PACTORY    | <b>1</b> 9 | VER LIGHEL PACIFIC           |             |

FAILURE MODE-OUT OF SPECIFICATION. THE VE ACTUATOR ASSEMBLY FAILED WHEN THE DIFFERENTIAL FEEDBACK VOLTAGE WITH THE EMGINE ACTUATED TO EXTREME TAW POSITIONS MEASURED 0.74 VOLT AS OPPOSE) TO A MAX. ALLOMABLE D.6 VOLT. THE FAILURE WAS OUT TO A MULL VOLTAGE SHIFT MAICH RESULTED FROM A PHYSICAL JAR TO THE FEEDBACK FRANSDUCER PROSE SHACKET. EXISTING D INCHSIONS OF THE SRACKET HOUNTING MOLES AND SECURING SCREWS ALLOW FOR COMBIDERABLE SLOP WHICH COULD PERMIT EXCESSIVE MULL SHIFT.

CONVAIR DIVISION

11 JUN 1100

|   | 1001 HAT 11                                                                           | DIFFICULTIES REVIEW-HYDRAULIC SYSTEM-AIRBORNE                                                                                                                                                                                                                            | AULIC SYSTEM-AIRBORE                          | •                           |                       |         |                               |                                         |
|---|---------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|-----------------------------|-----------------------|---------|-------------------------------|-----------------------------------------|
|   | 8787EH                                                                                | TEST/REPORT MUMBER<br>FAILED COMPOMENT MANE                                                                                                                                                                                                                              | DIF DATA SOURCE<br>PART NUMBER                | VEHICLE SITE DATE DATE DATE | 317E<br>11ME 01P      | 1 H 0   | VENDOR NAME<br>VENDOR PART NO |                                         |
|   | CORRECTIVE ACTION-CORNIZ                                                              | ON-COGNIZANT PERSONWEL WERE ABVIBED OF THE MEED FOR CAREFUL ADMERENCE TO APPLICABLE MANDLING PROCEDU<br>MSUFFIENT EVIDENCE TO MARRANT A CLASS B CHANGE TO REDUCE THE BRACKET HOLE DIAMETER.                                                                              | EED FOR CAREFUL ADMI<br>SE TO REDUCE THE BRA  | RENCE TO                    | APPLICABL<br>DIANETER | # # :   | LING PROCEDU                  | •                                       |
|   | HTDRAULIC-A/B<br>Bustainer/Vernier                                                    | LV-80-224-F<br>TUBE A33EMBLY, B-NUT                                                                                                                                                                                                                                      | FAR<br>27-03307-7                             | 3500                        | 5                     | 76 60/C | 3/1                           | ======================================= |
|   | FAILURE MODE-OUT OF SESC                                                              | IT OF BESCIFICATION OR TOLENANCE-DUE TO HIGH TORAUG REQUIRED TO BEAL AGAINST TUBE PLARE.                                                                                                                                                                                 | TORBUE REBUIRED TO A                          | EAL AGAIN                   | 1 1 TUBE 1            | LARE.   |                               |                                         |
|   | CORRECTIVE ACTION-GD/C SURVET 116-                                                    | ON-CD/C SURVET 116-55 WAS INITIATED TO EXAMINE ALL CHE-G-WATER INCH MACENTA-COLORED 6-MUTS. A STUDY<br>PROBLEM MAS STARTED.                                                                                                                                              | ME ALL CHE-BINATER I                          | NOW MAGEN                   | 7A-COLORE             | 3 9     | 115. A STUDY                  |                                         |
|   | HTDRAULIC-A/8<br>Sustaingr/Vernier                                                    | SR-27-2627<br>BUSTAINER HYDGAULIC TANK, O-RING                                                                                                                                                                                                                           | UTP-PET<br>E7-0655E-8                         | ******                      | CONVAIR               | 2 Q     | BENBOW<br>89636               | 210600                                  |
|   | FAILUME MODE-LEAK, INTERNAL DUR<br>-41NG EKCEDED EML./MR. ALLONED.                    | AK. INTERNAL DURING TEMPERATURE AND LIFE CYCLING TESTS THE GAS PRECNARGE LEAKAGE ACROSS THE PISTORS IN. ALLONED.                                                                                                                                                         | LING TESTS THE GAS P                          | #ECHARGE                    | LEARAGE A             | CRO8 8  | THE PISTON O                  |                                         |
|   | CORRECTIVE ACTION-NOME.                                                               |                                                                                                                                                                                                                                                                          |                                               |                             |                       |         |                               |                                         |
|   | HYDRAULIC-A/8<br>SUSTAINER/VERNIER                                                    | LV-80-04-4625-C<br>SUSTAINER ACTINITOR ASSEMBLY                                                                                                                                                                                                                          | FAR<br>27-05314-019                           | <b>*03180</b>               | <b>a</b> 2            | 753 0   | TES LIGHEL PACIFIC            | 1988                                    |
|   | FAILURE MODE-CONTAMINATIO<br>D ON THE EXTERNAL BUNFACES<br>NOT BE FOUND FOR AMALYSIS. | FAILURE MODE-CONTANTMATION. BUBTAINER BERVO CYLINDER REPORTEDLY FAILED WHEN DURING AN INGFECTION CORROGION WAS FOUN<br>) on the external burfaces of the bervocylinder. This failure analysis was canceled as the bervocylinder assy coald<br>not be found for amalysis. | EDLY PAILED WHEN DUN<br>E. ANALYBIB WAS CANCE | 1106 AN 10<br>LEED AS TH    | BPECTION<br>E BERVOCY | CORRO   | ION MAS FOUN<br>1 ASSY COULD  |                                         |
|   | CORRECTIVE ACTION-NO ACT                                                              | ON-NO ACTION TAKEN.                                                                                                                                                                                                                                                      |                                               |                             |                       |         |                               |                                         |
| • | htdaal.ic-a/b<br>bustaimer/vermier                                                    | A-JA-04-4068-F<br>Feedback Transducer                                                                                                                                                                                                                                    | FAR<br>27-04208-1                             | 103110                      |                       | 2 0     | CRESCENT<br>PC-68P-4E         | :                                       |
|   | FAILURE MODE-OUT OF TOLERANCE. IS MITH THE TUNING BLUG MISSING                        | FAILURE MODE-OUT OF TOLERANCE, MULL VOLTAGE NAS REPONTED TO BE MIGH, THE TRANSDUCER NAS RECEIVED FOR FAILURE AMALYS<br>Is vith the tunime blue missing and a broken sheilded commecting cable so the pailure has not compinned.                                          | DE HIGH. THE TRANSC<br>TING CABLE BO THE PA   | UCER UNS                    | MECE 1 VED<br>NOT COM | POR P.  | ILURE AMALYS                  |                                         |

CORRECTIVE ACTION-FAILURE NOT CONFIRMED, UNIT RECEIVED IN A DAMAGED CONDITION.

15 JUN 1888

•

:

| 1              | 3137EM<br>316-3737EM                                                                           | TESTARFORT NUMBER<br>FAILED COMPONENT MANE                                                                                                                                                                                                                                                                                                                             | DIF DATA BOUNCE<br>PART HUMBER                                         |                                              | WEMICLE BITE PRI                             | PRI VENDO<br>OTH VENDOR                  | VENDOR NAME<br>VENDOR PART NO    |        |
|----------------|------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|----------------------------------------------|----------------------------------------------|------------------------------------------|----------------------------------|--------|
| - <del>-</del> | HTORAUL IC-A/B<br>BUSTAINER/VERNIER                                                            | LV-80-04-4551-F<br>ACTUATOR ABSEMBLY                                                                                                                                                                                                                                                                                                                                   | FAR<br>27-65811-000                                                    | 2670<br>631202                               | ? <b>.</b>                                   | YES LIGHEL PACIFIC<br>NO                 | PACIFIC                          | •      |
|                | FAILURE MODE-LEAK-EXTEN<br>E CAUSE OF THE REPORTED<br>ERSIZED SEALING SUNFACES<br>LUBRICATORS: | FAILURE MOE-LEAR-EXTENMAL. THE VE BERVOCYLINGER ABREMBLY LEAKED OIL AROUND THE BHAFT DURING AUTOFILOT CHECKOUT. THE CAUSE OF THE REPORTED FAILURE WAS NOT DEFINITELY DETENHED. THERE WAS NO EVIDENCE OF DANAGED, CONTANINATED ON UND ERSIZED SEALING BUNFACES, ANY LEARANE PROBABLY RESULTED FROM SPONNE-LINE ACCUMULATION OF HYDRAULIC FLUID IN THE PELT LUBRICATORS. | HT LEAKED OIL AROUND<br>HINED, THERE WAS NOT<br>FROM SPOWGE-LINE ACCL  | THE SHAFT DU<br>VIDENCE OF D<br>PHULATION OF | MING AUT<br>AMACED, O<br>HTDRAULIO           | OPILOT CHEC<br>CONTANINATE<br>C FLUID IN | ACUT. TH<br>D OR UND<br>THE PELT |        |
|                | CORRECTIVE ACTION-ALTHOU<br>INCOMERUGNIAL: IT MAS R<br>BRICATONS: REF. ECP 5442.               | COKRECTIVE ACTION-ALTHOUGH THE LEAKAGES REFLECTED THROUGHOUT THE HISTORY OF THIS FAILURE HODE ARE SO SMALL AS TO SE<br>Inconsequental, II was recomended, subject to air force approval, that teplom rimes se substituted for the felt lu<br>Ricators, ref. ECP 5448.                                                                                                  | KHOUT THE HISTORY OF<br>LE APPROVAL! THAT TEFL                         | THIS FAILURE<br>ON RINGS DE                  | HODE AND                                     | E BO SMALE<br>PED POR THE                | 48 TO BE                         |        |
| I .            | HTDRAU IC-A/B<br>BUSTAINE 9/VEGNIER                                                            | LV-89-D4-4813F<br>TRANSOUCER, FUNCTIONAL                                                                                                                                                                                                                                                                                                                               | FAR<br>27-04204-5                                                      | 41110                                        | PACTORY                                      | YES CRESCENT<br>NO MC108-4E              | = =                              | •      |
|                | CORRECTIVE ACTION-NO CORRECTIVE ACTION TAKEN.                                                  | RRECTIVE ACTION TAKEN.                                                                                                                                                                                                                                                                                                                                                 |                                                                        |                                              |                                              |                                          |                                  |        |
| <u> </u>       | MYDRAULIC-A/B<br>Bustainer/Yermier                                                             | A-823-PF<br>PRESSURE 646E                                                                                                                                                                                                                                                                                                                                              | FAR<br>87-08568-8                                                      | 971                                          | PACTORY                                      | YES POCHESTER SAGE<br>NO 8801-71'-1      | 33                               | 801940 |
|                | FAILURE MODE-LEAK INTER                                                                        | FAILUME MODE-LEAK INTERMUL-LEAK AT THE BOMBON TUBE BRAZE JOINT.<br>CORRECTIVE ACTION-LEAKING GAGES HOUAD NE DETECTED DURING EQUIPMENT OPERATION. CAN BE CAUGHT AT 81TE DURING PRECHARG                                                                                                                                                                                 | ZE JOINT.<br>6 EQUIPMENT OPERATION                                     | . CAN BE CAU                                 | 14 14 18 18 18 18 18 18 18 18 18 18 18 18 18 | TE DUNING 1                              | MECHARG                          |        |
| 1 2 -          | MYDAAULIC-A/B<br>BUSTAIMER/VERNIER                                                             | 3LV-00-04-4618-F<br>ACTUATOR, WENNER                                                                                                                                                                                                                                                                                                                                   | FAR<br>27-9878-8                                                       | #118                                         | PACTORY                                      | VES LICHEL-PACIFIC<br>NO E792-E          | PACIFIC                          | *****  |
|                | FAILURE MODE-LEAK EXTERN<br>T AT THE CYLINGER HOUSING<br>ATERAL BUT NEAE NOT CUT               | FAILURC MOE-LEAK EXTERNAL-ACTUATORS S/M EII-OTSD AND 108-0177 REPORTEDLY LEAKED MYDRAULIC OIL PRON THE SHUBSER FOR<br>1 AT THE CYLINDER MOUSING, THE REPORTED FAILURES WERE NOT COMTRHED. THE O-RINGS IN THE ACTUATORS WERE OF INFERIOR M<br>1 TERIAL BUT MERE MOT CUT OR GOUGED TO ALLOW LEARABE AT THE WERY MICH RATES REPORTES.                                     | 16-0177 REPORTEDLY LE<br>T CONTREED, THE O-RI<br>HE VERY HIGH RATES RE | AKED HYDRAUL.<br>Neb in the A<br>Ported.     | IC OIL FR                                    | ION THE SHUE                             | GER POR                          |        |
|                | COMMECTIVE ACTION-THE VE                                                                       | COARCCIVE ACTION-THE VENDER WAS NOTIFIED OF THE INFERIOR GUALITY OF THE O-RINGS IN THE ACTUATORS. THE VENDER WAS                                                                                                                                                                                                                                                       | Of BULLITY OF THE O-R                                                  | 341 HI 64HI                                  | ACT UA TORE                                  | 1. THE VENDI                             | 4 44 6                           |        |

GENERAL DINAMICS

18 10M 1966

|         | CONVAIR DIVIBION |
|---------|------------------|
| 4 M M M | CONAIR           |
|         |                  |

| 100 mar 11                                                                                                                                     | DIFFICULTIES REVIEW                                                                                                                                                                                                                                                                                                                                                                                                                                     | DIFFICULTIES REVIEW-HYDRAULIC SYSTEM-AIRSCANE                                                        | ¥                                                     |                       |                           |                                                                      |       |
|------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|-------------------------------------------------------|-----------------------|---------------------------|----------------------------------------------------------------------|-------|
| SYSTEM<br>SUB-SYSTEM                                                                                                                           | TESTALPORT NUMBER<br>PAILED COMPONENT NAME                                                                                                                                                                                                                                                                                                                                                                                                              | DIF DATA BOUNCE<br>PART NUMBER                                                                       | VEHICLE<br>DATE DIF                                   | 817E<br>714E 91F      | £ 0                       | WENTELE BITE PAT VENDOR NAME<br>DATE BIP TIME BIP OTH VENDOR PART NO |       |
| HYDRAULIC-A/B<br>BUSTAINER/YERNIER                                                                                                             | LV-88-10-818-F<br>SUSTAINER NYDRAULIC PUNT                                                                                                                                                                                                                                                                                                                                                                                                              | FAR<br>27-06590-3                                                                                    | 3310<br>631189                                        | PACTORY               | 2 3                       | TES VICKERS<br>NO AA-80410-L-2                                       | •     |
| FAILURE MODE-CONTANIN                                                                                                                          | FAILURE MODE-COMTANIMATION-NOT IBENTIFIABLE.                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                      |                                                       |                       |                           |                                                                      |       |
| CORRECTIVE ACTION-VIB                                                                                                                          | CORRECTIVE ACTION-VIBRATION AND PLUBNING CHECKOUT PROCEDURES ADDED-BUALITY CONTROL BURVEILLANCE INCREASED.                                                                                                                                                                                                                                                                                                                                              | DURES ADDED-BUNLITY CO                                                                               | NTAGE BURY                                            | TLLANCE               | 1 NCRE/                   | .960.                                                                |       |
| HYDRAULIC-A/B<br>BUSTAINER/YERNIER                                                                                                             | A-88-64-4877-F<br>ACTUATOR ASBY, BERNOVALVE                                                                                                                                                                                                                                                                                                                                                                                                             | FAN<br>E7-66314-0E1                                                                                  | 931160                                                | FACTORY               | 33                        | LICHEL PACIFIC 882888                                                | •     |
| FAILURE MODE-OUT OF SPECI<br>LD CUREMT WAS PLUS OR NIN<br>S REPORTED FAILURE MAS NO<br>HILLIAMPERE, EVIDENCE INDI<br>ECOND SIGNIFICANT MURBER. | FAILUME MOE-OUT OF SPECIFICATION. THE BUSTAINER BERNOCYLINDER ASSEMBLY PAILED MAEN THE RECORDER SERVOVALVE THRESMO. LD CURRENT WAS PLUS OR NIMUS D-200 MILLIAMPERE. THI S REPORTED FALS PLUS OR NIMUS D-200 MILLIAMPERE. THI S REPORTED FAILUME WAS PROT COMPIRED WAS PLUS OR MIMUS D-19 MILLIAMPERE. THI MILLIAMPERE. EVIDENCE INDICATES THE AMETER UNED BY NECEIVING INSPECTION WAS NOT ADEQUATE TO ACCURATELY RECORD THE S ECOND SIGNIFICANT MANDER. | TLINDER ASSEMBLY PAILE<br>E THRESHOLD CURRENT WA<br>ENT RECORDED DURING FA<br>IVING INSPECTION MAG N | D WEN THE<br>S PLUS OR I<br>SLUE ANAL!<br>OT ADEGIATI | RECORDER<br>FRUS G.E. | SERVE<br>OO HIL<br>PLUS C | VALVE THRESHO<br>LIAMPERE, THI<br>PR MINUS D.18<br>/ RECORD THE &    |       |
| CORRECTIVE ACTION-THE                                                                                                                          | CORRECTIVE ACTION-THE TEST CONSOLE WAS REMOMED IN APRIL 1864. THE REMOME INCLUDED INSTALLATION OF A HOME RELIABLE                                                                                                                                                                                                                                                                                                                                       | L 1964. THE RENOW INC                                                                                | LUDED INSTA                                           | 4LATION               | 8                         | ORE RELIABLE                                                         |       |
| HTDRAULIC-A/B<br>BUSTAINER/VERNIER                                                                                                             | A-98-10-223-F<br>BUSTAINER HIDRAULIC PUMP, O-RING                                                                                                                                                                                                                                                                                                                                                                                                       | FAR<br>NS 87-06500-3                                                                                 | 1377                                                  | COMPLEXI YES VICKERS  | 20                        | VICKERS<br>AA-80410-L-E                                              | :     |
| FAILUNE MODE-LEAK EXT                                                                                                                          | FAILUME MODE-LEAK EXTERNAL-OCCURED BETWEEN COMERPLATE AND PUMP BODY.                                                                                                                                                                                                                                                                                                                                                                                    | is the sast.                                                                                         |                                                       |                       |                           |                                                                      |       |
| CORRECTIVE ACTION-1M                                                                                                                           | CORRECTIVE ACTION-IMPROVED BEAL DESIGN BY VICKERS.                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                      |                                                       |                       | i                         |                                                                      |       |
| HYDRAULIC-A/B<br>BUSTAINER/YERNIER                                                                                                             | A-89-223-F                                                                                                                                                                                                                                                                                                                                                                                                                                              | FAR<br>87-08568-3                                                                                    | 76E<br>931122                                         | FACTORY               | 20                        | YES RECHESTER GAGE<br>NO 8803-718-1                                  | 90100 |
| FAILURE MODE-LEAR INI                                                                                                                          | FAILURE MODE-LEAR INTERNAL-LEAR AT THE BOURDON TUBE BRAZE JOINT.                                                                                                                                                                                                                                                                                                                                                                                        | 26 JOINT.                                                                                            |                                                       |                       |                           |                                                                      |       |
| CORRECTIVE ACTION-LEA                                                                                                                          | COPRECTIVE ACTION-LEAKING GAGES WOULD BE DETECTED DURING EQUIPMENT OPERATION. CAN BE CAUCHT AT BITE DURING PRECHARG                                                                                                                                                                                                                                                                                                                                     | 6 EQUIPMENT OPERATION.                                                                               | CAN BE CA                                             | Ment AT 8             | ă<br>H                    | URING PRECHARE                                                       |       |
|                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                      |                                                       |                       |                           |                                                                      | -     |

15 JUN 1966

| 998 T 277 S N                                                                                                                                  | DIFFICULTIES REVIEW-HYDRAULIC SYSTEM-SIRBORME                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | INLIC BYSTEN-AIRBORP                                                                                         | ~                                   |                                                  |                         |                                                                            |        |
|------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|-------------------------------------|--------------------------------------------------|-------------------------|----------------------------------------------------------------------------|--------|
| 3721EH<br>808-3731EH                                                                                                                           | TEST/REPORT NUMBER<br>FAILED COMPONENT NAME                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | DIF DATA BOURCE<br>PART NUMBER                                                                               | VEHICLE<br>DATE DIF                 | 817E<br>71ME DIF                                 | 2 to                    | VENDOR NAKE                                                                |        |
| HYDRAULIC-A/B<br>BUSTAINER/VERNIER                                                                                                             | 6941904.1<br>FITTING, PUMP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | U19-8LT<br>87-0880-8                                                                                         | 231140                              | CONVAIR                                          | 9                       | YES VICKERS<br>NO AA-80410-L-2                                             | •••    |
| FAILURE MODE-STRUCTURAL-AT THE COMPLETION OF BSURE FITTING MAS CRACKED AND LEAKING OIL, THE TS DEGREE & F DURING THE VIGHATION SNEEP, REF      | FAILURE MODE-STRUCTURAL-AT THE COMPLETION OF THE THIRD AXIS BLT VIBRATION TEST IT WAS DISCOVERED FHAI THE IMLET PRE<br>SSURE FITTING MAS CRACKED AND LEAKING OIL, THE UNIT WAS AT 160 DEGREE F, FOR 30 MINUTER AND THE FINAL S RINUTES AT 2<br>TS DEGREE S F DURING THE VISRATION SWEEP, REF, FPR MR F-4072 ST S/M 303-0344.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | BLT VIBRATION TEST<br>10 DEGREE F. FOR 30<br>87 B/N 808-0844.                                                | MINUTER A                           | ACOVERED NO THE FI                               | THAT<br>MAL 1           | THE INLET PRE                                                              |        |
| HYDRACK 1C-A/B SUCTATING Z/VERNIER                                                                                                             | A-59-04-4-78-F<br>SUSTAINER ACTUATOR ASSEMBLY, SERVO E7-85314-817<br>VALVE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | FAR<br>27-85314-817                                                                                          | 1660                                | FACTORY                                          | 22                      | LIONEL PACIFIC                                                             | 668737 |
| FAILURE MODE-LEAK-EXTERN<br>TED FAILURE MAS NOT CONTI-<br>TON. EVIDENCE INDICATES TO<br>43 FOR MAICH IT MAD ALREA<br>RI REGARDING THE EL AUGUS | FAILURE MODE-LEAK-EXTERNAL-THE SHITAINER ACTUATOR ASSENDLY REPORTEDLY LEAKED DIL THROUGH THE BERVOVALVE. THIS REPORTED FAILURE MAS NOT COMFIRMED. TESTING INDICATED NO DISCREPANCIES OR CONTAMINATATOR. EVIDENCE INDICATES THIS PART MAS NISTAKENLY SUBMITTED FOR ANALYSIS CONCERNING SUSPECTED LEAKAGE ON RE AUGUST 18 43 FOR MAICH IT MAD ALREADY BEEN TESTED. THE REJECTION TAG OF 13 NOVENBER WAS TO REPLACE E BOLTS. AN INSPECTORS REPORT REGARDING THE RELACE AND SUSPECTED LEAKAGE WAS ATTACHED TO THE BOLT AND THE BOLT REGARDING THE RELACE FOR THE SUSPECTION AND A REGARDING THE RELACE FOR THE PART OF THE BOLT REGARDING THE RELACE FOR THE POLT REGARDING THE RECORD AND THE RELACE FOR THE PART OF THE BOLT REGARDING THE RECORD AND THE RECORD AND THE PART OF THE BOLT REGARDING THE RECORD AND THE RECORD AND THE RECORD AND THE RECORD AND THE RECORD AND THE RECORD AND THE RECORD AND THE RECORD AND THE RECORD AND THE RECORD AND THE RECORD AND THE RECORD AND THE RECORD AND THE RECORD AND THE RECORD AND THE RECORD AND THE RECORD AND THE RECORD AND THE RECORD AND THE RECORD AND THE RECORD AND THE RECORD AND THE RECORD AND THE RECORD AND THE RECORD AND THE RECORD AND THE RECORD AND THE RECORD AND THE RECORD AND THE RECORD AND THE RECORD AND THE RECORD AND THE RECORD AND THE RECORD AND THE RECORD AND THE RECORD AND THE RECORD AND THE RECORD AND THE RECORD AND THE RECORD AND THE RECORD AND THE RECORD AND THE RECORD AND THE RECORD AND THE RECORD AND THE RECORD AND THE RECORD AND THE RECORD AND THE RECORD AND THE RECORD AND THE RECORD AND THE RECORD AND THE RECORD AND THE RECORD AND THE RECORD AND THE RECORD AND THE RECORD AND THE RECORD AND THE RECORD AND THE RECORD AND THE RECORD AND THE RECORD AND THE RECORD AND THE RECORD AND THE RECORD AND THE RECORD AND THE RECORD AND THE RECORD AND THE RECORD AND THE RECORD AND THE RECORD AND THE RECORD AND THE RECORD AND THE RECORD AND THE RECORD AND THE RECORD AND THE RECORD AND THE RECORD AND THE RECORD AND THE RECORD AND THE RECORD AND THE RECORD AND THE RECORD AND THE RECORD AND THE RECORD AND T | IEPORTEDLY LEAKED OI<br>AND DIBABBLY MEN<br>PR ANLYBIS CONCERNI<br>13 NOVEMBER WAS TO<br>HE BOLT REGUEST TAG | FALED NO ME SUSPECE NO REPLACE      | THE BERY<br>DISCREPAN<br>TED LEAKA<br>E BOLTS.   | COVAL.                  | IC. THIS REPORT OR CONTAHINAT OF CONTAHINAT OF E. AUGUST 19 ISPECTORS REPO |        |
| CONFECTIVE ACTION-NO CORRECTIVE ACTION TAKEN.                                                                                                  | RECTIVE ACTION TAKEN.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                              |                                     |                                                  |                         |                                                                            |        |
| HIDRAULIC-A/B<br>BUSTAIMER/VERMIER                                                                                                             | LV-8D-D4-4871-F<br>Actuator Asst, transducer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | FAR<br>27-65514-618                                                                                          | <b>EE</b> 70<br><b>6511E1</b>       | 8-8 378d                                         | 2 Q                     | LIONEL PACIFIC                                                             | :      |
| FAILURE MODC-ERRATIC OPE<br>OUTPUT MAS IRREGULAR AT 11<br>CLUATOR ATTACH POINT AND<br>HPLIFIED BT A SERVOLALVE<br>ED A FAILUME OF THE DERWO    | FAILURE MOCCERRATIC OPERATION. THE SUSTAINER ACTUATOR ASSEMBLY MAS REJECTED MMEN THE POSITION PEEDBACK TRANSDUCER. OUTPUT MAS INVENTED MAIL MOVENENTS BETWEEN THE EMGING-A CLUATOR MAIL MOVENENTS BETWEEN THE EMGING-ACTUATOR ATTACK POINT, DUE TO DEFLECTION DURING ACTUATOR OPERATION WHICH WERE A WHILE POINT AND THE VEHICLE-ACTUATOR ATTACK POINT, DUE TO DEFLECTION DURING ACTUATOR OPERATION WHICH WERE A SERVOLAUVE MORE RESPONSIVE THAN MORNAL TO SMALL AMPLITUDE HIGH FREGUENCY BIGHALS. THIS IS NOT CONSIDER ED A FAILURE OF THE DERNOCYLINDER ASSEMBLY.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | BLY NAS REJECTED NA<br>NAS CAUSED BY VENY<br>NE TO DEFLECTION DV<br>AMPLITUDE MIGH FRE                       | EN THE PE<br>BHALL HON<br>ATHE ACTU | BITSON PE<br>ENENTS BE<br>MICH OPER<br>GHALS. TH | EDBAC<br>TAEE<br>14 110 | IR TRANSDUCER<br>4 THE EMGINE-A<br>4 UNION MENE A<br>5 NOT CONSIDER        |        |
| COARECTIVE ACTION-BITE P                                                                                                                       | COMPECTIVE ACTION-BITE PERSONNEL MEME ADVISED THAT DISTORTIONS IN POSITION GUTPUT SIGNAL ON THE 10 OR 12 CPS TEST A<br>E NOT TO BE USED AS A CRITERIA FOR COMPONENT REJECTION.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | NA IN POSITION OUT                                                                                           | UT BICHAI                           | 9 T                                              | 8                       | 12 CP0 7E67 A                                                              | •      |
| HYDRAULIC-A/B<br>BUSTAIMER/YERMIER                                                                                                             | A-80-233-F<br>P4638-ME GA&E                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | FAR<br>27-06562-3                                                                                            | 031180                              | FACTORY                                          | <b>2</b> 9              | YES HOCHESTER GAGE<br>NO 8003-719-1                                        |        |
| FAILURE MODE-LEAR INTERN                                                                                                                       | FAILURE MODE-LEAR INTERNAL-LEAR AT THE SOURDON TUBE BRAZE JOINT.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | DIMT.                                                                                                        |                                     |                                                  |                         |                                                                            |        |

CORRECTIVE ACTION-LEAKING BABES WOULD BE DETECTED DURING EBUIFMENT OPERATION. CAN BE CAUGHT AT BITE DURING PRECHARG

9901 NOT 11

| 9901 207 41                                                                                                     | DIFFICULTIES REVIEW-HYDRAULIC SYSTEM-AIRSORME                                                                                                                                                                                                                                                                                                                                                                                                                                  | DRAULIC SYSTEM-AIRBOT                                                                          | ¥                             |                                    |                                                                    |                                                            |             |
|-----------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|-------------------------------|------------------------------------|--------------------------------------------------------------------|------------------------------------------------------------|-------------|
| 8787EN<br>808-8787EN                                                                                            | TEST/REPORT NUMBER<br>FAILED COMPONENT NAME                                                                                                                                                                                                                                                                                                                                                                                                                                    | DIF DATA BOUNCE<br>PART NUMBER                                                                 | VEHICLE<br>DATE DIF           | 817E                               | Z 5                                                                | VENDOR MANE                                                | <del></del> |
| ſ.                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                |                               |                                    | 7                                                                  |                                                            | 9           |
| HYDRAULIC-A/B<br>BUSTAINER/YERNIER                                                                              | A-99-R5-F<br>P4E35URE 646E                                                                                                                                                                                                                                                                                                                                                                                                                                                     | FAR<br>87-0856-3                                                                               | 021180                        | FACTORY                            | <b>2</b> 3                                                         | ROCHESTER 646C<br>8903-719-1                               | 10100       |
| FAILURE MODE-LEAK INTE                                                                                          | INTERMAL-LEAK AT THE BOUNDON TUBE BRAZE JOINT.                                                                                                                                                                                                                                                                                                                                                                                                                                 | JOINT.                                                                                         |                               |                                    |                                                                    |                                                            |             |
| COGRECTIVE ACTION-LEAK                                                                                          | I-LEAKING GAGES WOULD BE DETECTED DURING EQUIPMENT OPERATION. CAN BE DETECTED AT SITE DURING PRECHA                                                                                                                                                                                                                                                                                                                                                                            | IEUIPHENT OPERATION.                                                                           | CAN BE DET                    | ECTED AT                           | 31.16                                                              | DURING PRECHA                                              |             |
| HYDRAULIC-A/B<br>SUSTAINER/VERHIER                                                                              | E7CS194<br>VALVE, SAFETY RELIGF                                                                                                                                                                                                                                                                                                                                                                                                                                                | UTP-PE:<br>E7-08369-1                                                                          | 031180                        | CONVAIR                            | ÷ 8                                                                | TES BENBON<br>NO BEIED                                     | •• 704      |
| FAILURE MODE-OUT OF SP<br>M. ALLOMABLE SO PSID. D                                                               | FAILUKE MODE-OUT OF SPECIFICATION. S/N 310-0747, DIFFERENCE BETWEEN FULL FLOW DIFFERENTIAL PRESSURE WAS 30 PSID. MI<br>N. ALLOMABLE 50 PSID. DURING IAT FPR-5021 FAILURE DUE TO DIFFERENCES IN TEST TECHNIQUES.                                                                                                                                                                                                                                                                | E BETWEEN FULL FLOW<br>FFERENCES IN TEST TE                                                    | DIFFERENTI<br>CHNI BUE 3.     | AL PRESS                           | 3                                                                  | 18 30 PSID. MI                                             |             |
| CORRECTIVE ACTION-REF.<br>AS RETESTED 15 TIMES US                                                               | CORRECTIVE ACTION-REF. FR 654-2-070. ALL GO/C TEST LABS WERE DIRECTED TO COSCRWE UNIFORM TESTING TECHNIONES. UNIT W<br>AS RETESTED 15 TIMES USING THE PROPER TECHNIQUES WITHOUT ANY DISCREPANCIES.                                                                                                                                                                                                                                                                             | RE DIRECTED TO COMER                                                                           | WE LAUFORN                    | 76811116                           | 27                                                                 | ITENES. UNIT W                                             |             |
| MYDRAUL I C-A/B<br>Bustainer/Vernier                                                                            | LV-89-04-4532-F<br>VERNIER ACTUATOR, O-RINGS                                                                                                                                                                                                                                                                                                                                                                                                                                   | FAR<br>27-06573-3                                                                              | 431116                        | FACTORY                            | 20                                                                 | VES LIGHEL-PACIFIC<br>NO 2792-2                            | ***         |
| FAILURE MODE-CONTANINA<br>HICH CONTANINATED THE S                                                               | FAILURE MODE-CONTAMINATION. THE VERNIER ACTUATOR LEAKED HYDRAULIC OIL BECAUSE OF SMEDDING OF THE FELT LUBRICATOR M<br>IICH CONTAMINATED THE SEALING O-RING.                                                                                                                                                                                                                                                                                                                    | PRAULIC OIL BECAUSE                                                                            | OF SHREBOI                    | ₹<br>\$                            | 12                                                                 | LUBRICATOR W                                               |             |
| CORRECTIVE ACTION-ALTHOUGH THE LEA<br>ION OR FIRE HAZARD PROBLEM, IT MAS<br>THE FELT LUBRICATORS. REF-ECP 3448. | CORRECTIVE ACTION-ALTHOUGH THE LEARAGE RATE FOR THIS FALURE MODE IS VERT LOW AND DOES NOT CONSTITUTE AN OIL DEPLET<br>ON OR FIRE HAZARD PROBLEM, IT WAS RECOMMENDED, SUBJECT TO AIR FORCE APPROVAL: THAT TEPLON RIMSS BE SUBSTITUTED FOR<br>HE FELT LUBRICATORS, REF-ECP 3442.                                                                                                                                                                                                 | ME HODE IS VERY LOW<br>AIR FORCE APPROVAL:                                                     | AND DOES N<br>THAT TEPLO      | Of COMSTI                          | 101<br>101<br>101<br>101<br>101<br>101<br>101<br>101<br>101<br>101 | AN OIL BEPLET<br>1871/TUTED FOR                            |             |
| 47DRAUL I C-A/B<br>Bustainer/Vermier                                                                            | LV-99-04-4532-F<br>ACTUATOR, VERNIER                                                                                                                                                                                                                                                                                                                                                                                                                                           | FAR<br>87-06578-3                                                                              | 91110                         | FACTORY                            | 88                                                                 | LIONEL-PACIFIC<br>R782-2                                   | •           |
| FAILURE MCGE-LEAK-EXTE<br>TMERE MAS NO LEAKAGE DI<br>ON: BEALING O-RIME DEFE<br>ER MARDMARE ATTACHED TO<br>18.  | FAILURE MOE-LEAR-EXTERNAL. THE VERNIER ACTUATOR (8/M E11-0778) LEAKED HYDRAULIC OIL BURING PROOF PRESSURE TESTING. THERE WAS NO LEARAGE DURING EXTENSIVE TESTING POLLOWING THIS REPORTED FAILURE. THERE WAS NO EVIDENCE OF CONTANINATI M. SEALING O-RING DEFECT OF INTERNAL CYLINDER SORE DEFECTS. THERFORE, THE CAUSE OF THE LEARAGE WAS ASSIGNED TO OTH A HARDWARE ATTACHED TO THE ACTUATOR AT THE TING OF INITIAL TESTING. THIS HARDWARE WAS REMOVED SEFORE FAILURE ABALTS. | 0778) LEAKED MYDRAUL.<br>18 REPORTED PAILUGE.<br>1. THEREFORE, THE CAU.<br>TESTIMS. THIS MANDM | THERE WAS DE OF THE OF THE OF | ING PROOF<br>HD EVIDE<br>LEAKAGE I | 100 E                                                              | ISURE TESTING. PF CONTAMINATI ISLENED TO OTH ALLURE ABALTS |             |

ŧ

11 10K 1966

<

1

|                                                                                                                       | DIFFICALITY REVIEW-EVERACLIC BYSTEE-ALABORING                                                                                                               | AULIC BYSTEN-ALABOR                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | ļ                                       |
|-----------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|
| 8787EN<br>808-8737EN                                                                                                  | TEST/REPORT NUMBER<br>FAILED COMPONENT NAME                                                                                                                 | DIF DATA BOUNCE<br>PART NUMBER                                                              | VEHICLE SITE PRI VENDOR MAME DATE DIF TIME DIF OTH VENDOR PART NO                                                                                                                                                                                                                                                                                                                                                                                                                     |                                         |
| COMPECTIVE ACTION-NONE.                                                                                               | COMPECTIVE ACTION-NOWE. SINCE THE ACTUATOR CANNOT BE CONSIG                                                                                                 | ERED A FAILED ITEM                                                                          | N-NOME. SINCE THE ACTUATOR CANNOT BE CONSIDERED A FAILED STEM AND ASSOCIATED MARDWARE WAS REMOVED S. F. THE LEARAGE COULD BE DETERMINED.                                                                                                                                                                                                                                                                                                                                              | *****                                   |
| HYDRAULIC-A/B<br>BUSTOLMER/VERNIER                                                                                    | LV-88-04-4552-F<br>ACTUATOR, VERNIER                                                                                                                        | FAR<br>E7-06578-3                                                                           | 631519 PACTORY NO LIGHEL-PACIFIC NO 2782-2                                                                                                                                                                                                                                                                                                                                                                                                                                            | *************************************** |
| FAILURE MODE-LEAK-EKTERN<br>THERE WAS NO LEARAGE DUR<br>ON, SEALING O-RING DEFECT<br>HER HARDMARE ATTACHED TO<br>818. | ML. THE VERNIER ACTUATOR (87M 204-C<br>RING EXTENSIVE TESTING FOLLOWING THI<br>I, OR INTERNAL CYLINGER BORE DEFECTI<br>THE ACTUATOR AT THE TIME OF INITIAL  | 671) LEAKED HYDRAUL<br>8 REPORTED FAILURE:<br>1, THEREFORE, THE CA<br>1, TESTING, THIS HARD | FAILURE MODE-LEAK-EXTERMAL, THE VERNIER ACTUATOR (87N 204-0871) LEAKED HYDRAULIC OIL BURING PROOF PRESSURE TESTING. THERE WAS NO LEAKAGE DURING EXTENSIVE TESTING FOLLOWING THIS REPORTED FAILURE. THERE NAS NO EVIDENCE OF CONTAMINATI ON, SEALING O-RING DEFECT, OR INTERNAL CYLINNER BORE DEFECTS, THERFORE, THE CAUSE OF THE LEAKAGE MAS ASSIGNED TO OT HER HARDWARE ATTACHED TO THE ACTUATOR AT THE TIME OF INITIAL TESTING. THIS HARDWARE WAS RENOVED BEFORE FAILURE ANALY SIS. |                                         |
| CORRECTIVE ACTION-NOME S<br>FORE THE CAUSE OF THE LEA                                                                 | HOME SINCE THE ACTUATOR CAMPOT BE CONSIDE<br>THE LEARAGE COULD BE DETERMINED.                                                                               | AED A FAILED ITEM A                                                                         | N-NOME SINCE THE ACTUATOR CAMPOT BE COMBIDERED A FAILED ITEM AND ABBOCIATED MANDMARE WAS REMOVED BE<br>The learage could be determined.                                                                                                                                                                                                                                                                                                                                               |                                         |
| HTDRAULIC-A/B<br>SUSTAIMER/VERNIER                                                                                    | LV-59-U4-455E-F<br>ACTUATOR, VERNIER                                                                                                                        | /AR<br>27-06573-3                                                                           | GREETS FACTORY NO LIGHEL-PACIFIC NO 2752-E                                                                                                                                                                                                                                                                                                                                                                                                                                            | *************************************** |
| FAILURE MCDE-LEAR-EXTERN THERE WAS NO LEARAGE DUR ON, SEALING O-RING DEFECT ER HARDWARE ATTACHED TO T                 | MAL. THE VERNIER ACTUATOR 18/M E11-C<br>RING EXTENSIVE TESTING FOLLOGING THI<br>T OR INTERNAL CYLINGER BORE DEFECTS.<br>THE ACTUATOR AT THE TIME OF INITIAL | 1788) LEAKED HYDRAUL<br>8 REPORTED FAILURE:<br>THEREFORE, THE CAU<br>TESTING, THIS HANDW    | FAILURE WODE-LEAK-EXTERMAL. THE VERNIER ACTUATOR (8/N E11-0788) LEAKED HYDRAULIC ONL BURING PROOF PRESSURE TESTING. THERE WAS NO LEAKAGE DURING EXTENSINE TESTING FOLLOWING THIS REPORTED FAILURE. THERE NAS NO EVIDENCE OF CONTAHINATI ON, SEALING O-RING DEFECT OR INTERNAL CYLINGER BORE DEFECTS. THEREFORE, THE CAUSE OF THE LEAKAGE WAS ASSIGNED TO OTH ER HARDWARE ATTACHED TO THE ACTUATOR AT THE TIME OF INITIAL TESTING, THIS HARDWARE WAS REDIOVED BEFORE FAILURE AMALTS.   |                                         |
| CORECTIVE ACTION-NOME B                                                                                               | I-NONE BINCE THE ACTUATOR CANNOT BE CONSIDE<br>THE LEARAGE COULD BE DETERMINED.                                                                             | AED A PAILED ITEM A                                                                         | CONECTIVE ACTION-WOME BINCE THE ACTUATOR CAMMOT BE COMBIDERED A FAILED ITEM AND ABBOCIATED MARDMANE WAS REMOVED BE<br>ONE THE CAUSE OF THE LEARAGE COALD BE DETERMINED.                                                                                                                                                                                                                                                                                                               |                                         |
| HYDRAULIC-A/B<br>BUSTAIMER/VERNIER                                                                                    | \$\$A1\$04.1<br>Pump, FITTING                                                                                                                               | UTP-PAT<br>ET-06580-3                                                                       | 691115 CONVAIR VES VICKERS NO AA-60410-L-E                                                                                                                                                                                                                                                                                                                                                                                                                                            | • 101                                   |
| FAILURE MODE-STRUCTURAL-<br>AST PITTING ON THE PUMP I                                                                 | FAILURE HODE-STRUCTURAL-AT THE COMPLETION OF PRT VIBRATION TERT IT MA<br>AST FITTING ON THE PUMP IMLET PAD. REF. FPR IS F-4071 BT 8/W 303-0344.             | TERT IT WAS DISCOVE<br>/ 303-0344.                                                          | UCTURAL-AT THE COMPLETION OF PRT VIBRATION TERT IT WAS DISCOVERED THAT SEPARATION OCCURRED AT THE .<br>E PUMP IMLET PAD. REF. FPR IR F-4071 BT 8/N 303-0344.                                                                                                                                                                                                                                                                                                                          | v                                       |
| CORRECTIVE ACTION-REPLAC<br>ME FAILED PART FOR FAILUR<br>BT PROCEDURE CHANNED TO B                                    | CED THE FAILED INLET PAD WITH A GOOD<br>RE AMALYDID, REF, FRR FR064-8-DGE D<br>DE INCOMPONATED, CUTTING DOMN VIDRA                                          | OME FROM ANOTHER VALLE FRAT DEBLEM HA                                                       | CORRECTIVE ACTION-REPLACED THE FAILED INLET PAD WITH A \$000 ONE FROM ANOTHER UNIT AND CONTINUED TEATING. RETAINED T<br>HE FAILED PART FOR FAILURE ANALYBID, REP, FRR FR884-2-082 STATES THAT DEBIGN HAS BUBNITIED TO THE PROCEDURE GROUP TE<br>BY PROCEDURE CHANGED TO BE INCORPORATED, CUTTING DOMN VIBRATION TIME ON EACH AHIS AND TO USE ONE RPW SPEED DURING TE                                                                                                                  |                                         |

DIFFICULTIES REVIEW-HYDRAULIC BYSTEM-AIRBORNE

| SEMERAL DYNAMICS | CONVAIR BIVIBION |
|------------------|------------------|
|                  |                  |

|             | 8181EH<br>808-8187EH                                                                                                                                                                                                                                                                                                                                                                        | TEST/REPORT NUMBER<br>PAILED COMPONENT NAME                                              | HUMBER<br>ENT NAME                                    | DIF DATA BOUNCE<br>PART NUMBER                                    | VEHICLE<br>DATE DIF                     | BITE PRI VENDOR NAME<br>TIME BIF OTH VENDOR PART NO | # 5<br>6<br>0                                       | VENDO                          | VENDOR NAME<br>PENDOR PART NO   |                                                  |
|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|-------------------------------------------------------|-------------------------------------------------------------------|-----------------------------------------|-----------------------------------------------------|-----------------------------------------------------|--------------------------------|---------------------------------|--------------------------------------------------|
| <del></del> | MTDRAULIC-A/B<br>BUBTAINER/VERNIER                                                                                                                                                                                                                                                                                                                                                          | LV-AS-04-4558-F<br>ACTUATOR ASSEMBLY, BERVOVALVE                                         | Le Woval Ve                                           | FAR<br>87-83511-807                                               | ***                                     | FACTORY                                             | ]                                                   | LIOREL                         | LIGHEL PACIFIC                  | ***                                              |
|             | FAILURE MODE-OUT OF TOLFRANCE. THE WEACTUATOR ASSEMBLY FAILED DURING CHECKOUT WHEN THE SMACTIVE MULL READING MAS - 0.279 VOLT WHILE PLUS OR MINUS 0.25 VOLT IS THE MAXIMUM ALLOMABLE TOLERANCE RANCE. THE FAILURE RESULTED FROM AN INCO RRECT SERVOALVE MULL ADJUSTMENT CAUSED BY THE UNIT BEING ADJUSTED WITH AN IOC-TYPE BERVOAMPLIFIER AND THEN TESTED W ITH AN AIG-TYPE SERVOAMPLIFIER. | LERANCE, THE WE ACTUATOR MINUS O.RS VOLT IS THO DUSTNENT CAUSED BY THE PLIFIER.          | M ABBENELY FAII<br>NE MAXIMUM ALLO<br>I UNIT BEING AD | LED DURING CHECKOUT<br>MABLE TOLERANCE RAN<br>JUSTED WITH AN IOC- | WEN THE<br>GE. THE FA<br>TYPE BERY      | SMCTEVE<br>SLUNE RE<br>MHPLIFIE                     | MC. 16                                              | MEADE<br>ED FROM               | ME MAS -<br>AN INCO<br>TESTED W |                                                  |
|             | CORRECTIVE ACTION-EQUIPMENT USED FOR ACCEPTANCE TESTING AND SERVOYALVE MALL ADJUSTMENT MAS MODIFIED BY INSTALLING A<br>M AIG-TIPE SERVOANFLIFIER TO ALIGN TEST EQUIPMENT WORE CLORELY WITH MISSILE MARCHARE, SERVOANCHE MALL ON ALL VEHICLE<br>S WILL BE ADJUSTED USING AN AIG-TIPE SERVOANFLIFIER SECAUSE BO PERCENT OF THE VEHICLES MANE AUTOPILOTS WITH AIG-TYPE<br>SERVOANFLIFIERS.     | PHENT USED FOR ACCEPTAN<br>ER TO ALIGN TEST EBUIPM<br>6 AN AIG-TYPE BERYGAMPL            | KE TEBTING AND<br>KENT HORE CLOSE<br>JFTER BECAUSE    | BERNOVALVE MALL AD<br>LY WITH HEBBILE HAR<br>BO PERCENT OF THE W  | JUSTHENT V<br>DWANE: BEA<br>EMICLES MA  | MS MOSIF                                            | I COT                                               | OF ALL                         | ALLING A<br>WEHICLE<br>AIG-TYPE |                                                  |
|             | HTDRAULIC-A/B<br>Sustaimer/Yernier                                                                                                                                                                                                                                                                                                                                                          | 68A1804.1<br>PUMP: FLANGE                                                                |                                                       | UTP-PRT<br>27-06590-8                                             | *************************************** | CONVAIR                                             | Ş Q                                                 | YES VICKERS<br>ND AA-60410-L-2 | 8-1-01<br>10-1-8                | 030160                                           |
|             | FAILURE MODE-STRUCTURAL-AT THE COMPLETION OF AKIBII PRT VIBRATION SMEEP, A CRACK WAS DISCOVERED IN THE OUTLET PRESS<br>UNE PORT PAD AT ONE OF THE SECURING BOLTS. REF. FOR NR F-4071, ST 8/N 305-0344.                                                                                                                                                                                      | L-AT THE COMPLETION OF<br>THE SECURING BOLTS. RET                                        | AXISII PRT VIG.                                       | AATION SMEEP, A CAA<br>1 ST S/N 305-0344.                         | EK WE DII                               | CONTRED                                             | ž                                                   | # 81±                          | ET PRESS                        |                                                  |
|             | CORRECTIVE ACTION-REPLACE THE CRACKED OUTLET PRESSURE PORT PAD MITH A 6000 OME PROM ANDTHER UNIT AND CONTINUE TESTS NG. HOLD THE FAILED PART FOR FAILURE AMALYSIS.                                                                                                                                                                                                                          | ACE THE CRACKED OUTLET<br>T FOR FAILURE AMALYBIB.                                        | PRESSURE PORT                                         | PAD METH A GOOD ONE                                               | PRON AND!                               | MER UNIT                                            | Š                                                   | CONTIN                         | Æ TESTI                         |                                                  |
|             | HTDRAULIC-A/B<br>BUSTAINER/VERNIER                                                                                                                                                                                                                                                                                                                                                          | LV-A9-04-4557-F<br>ACTUATOR ASST VERNIER                                                 | Ħ                                                     | FAR<br>E7-65512-605                                               | 2300                                    | FACTORY                                             | ភូទ                                                 | LIONEL                         | YES LIGHEL PACIFIC<br>NO        | 19780                                            |
|             | FAILURE MODE-EXTERNAL LEAK. ACTUATOR ASSEMBLY LEAKED OIL AROUND THE SHAFT DURING CHECKOUT IN THE FINAL ASSEMBLY ARE A. THE CAUSE OF THE REPORTED FAILURE COULD NOT DEFINITELY BE DETERNINED. THERE WAS BLIGHT FELT FISER CONTAINATION O F ONE OF THE SEALING O-RINGS, HOMENER, ANY LEAKAGE HOST PROBABLY RESULTED FROM SPONGELINE ACCUMULATION OF HYDRAULIC FLUID IN THE FELT LUBRICATORS.  | LEAK, ACTUATOR ASSEMBLY<br>ORTED FAILURE COULD NOT<br>RIMES, HOMEVER, ANY LEA<br>CATORS. | LEAKED OIL AN<br>DEFINITELY DE<br>KAGE MOST PROD      | OUND THE SHAFT DURI<br>DETERNINED. THERE<br>ABLY RESULTED FROM    | NG CHECKOL<br>NAS SLIGHI<br>SPONGELINE  | FELT FI                                             | 72.7<br>72.7<br>72.0                                | A ASSENCE                      | BLY ARE<br>MATION O<br>MAULIC   |                                                  |
|             | CORRECTIVE ACTION-ALTHOUGH THE LEARAGE RATE FOR THIS FAILURE HODE IS VERY LOW AND BOES HOT CONSTITUTE AN OIL DEPLET<br>ION OR FIRE MAZARD PROBLEM, IT WAS RECOMMENDED, SUBJECT TO AIR FORCE APPROVAL, THAT TEPLON RINGS BE SUBSTITUTED FOR<br>THE FELT LUBRICATORS.                                                                                                                         | OUGH THE LEAKAGE RATE F<br>LEH: IT WAS RECOMMENDED                                       | OR THIS FAILUR!                                       | E MODE 18 VERY LOM                                                | AND DOES IN                             | OT COMBT                                            | 2 7 7 2 2 3 4 2 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 | 7 AN OL                        | L DEPLET                        |                                                  |
|             | HYDRAULIC-A/B<br>BUBTAIMER/VERNIER                                                                                                                                                                                                                                                                                                                                                          | SLV-AS-D4-4572-F<br>VERNIER ACTUATOR SERVOVALVE                                          | 3A TVAQA                                              | FAR<br>60-68311-1                                                 | 360                                     | PACTORY                                             | ₹ <b>8</b>                                          | LIOMEL                         | YES LICHEL PACIFIC              | <del>                                     </del> |
|             | FAILUME MODE-DRIFT. THE VE TAW ACTUATOR ASSEMBLY FAILED WHEN THE PEEDBACK TRANSDUCER NULL WOLTAGES BRIFTE. FROM SG<br>TO 230 MV AFTER & MOURD CONTINUOUS OPERATION. THIS MAS ATTRIBUTED TO BERWOVALVE ARMATURE ASSEMBLY CONTOUR DISCREPANC<br>IES.                                                                                                                                          | E VE TAM ACTUATOR ABBER<br>CONTINUOUS OPERATION,                                         | BLT FAILED WE<br>THIS WAS ATTAIL                      | N THE PEEDBACK TAAN<br>BUTED TO BERVOVALVE                        | BOUCER MUL<br>ARMATURE                  | 1. VOLTAGI<br>ABBENGLY                              | 2 S                                                 | TOUR DE                        | FROM SO<br>BCREPANC             | ······································           |

| ****                                                                                                     | DIPPICULTIES REVIEW-HYDRAULIC SYSTEM-AIRSORME                                                                                                                                                                                                                                                                                                                                                                                                  | DRAULIC SYSTEM-AIRBOR                                                                             | *                                           |                         |                                                                                                          | ſ                                       |
|----------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|---------------------------------------------|-------------------------|----------------------------------------------------------------------------------------------------------|-----------------------------------------|
| 8787EN<br>843-8787EN                                                                                     | TESTACPORT NUMBER<br>FAILED COMPOSENT MANE                                                                                                                                                                                                                                                                                                                                                                                                     | DIF DATA SOURCE<br>PART NUMBER                                                                    | VEHICLE<br>DATE DIF TI                      | 817E P41                | VENDOR HANE                                                                                              |                                         |
| CORRECTIVE ACTION-THE V                                                                                  | VENOOR ESTABLISHED BETTER ASSEMBLY INSPECTION PROCEDURES. EACH VALVE NOW RECEIVES A THERMAL<br>To detect any unstable compition in the tonduc notor assembly.                                                                                                                                                                                                                                                                                  | INSPECTION PROCEDURES<br>THE TORRUE MOTOR ASS                                                     | EACH VALVE                                  | NCA NECE                | VES A THERMAL C                                                                                          | *************************************** |
| MTDRAULIC-A/B<br>SUSTAINER/VERNIER                                                                       | LV-80-04-4538-F<br>ACTUATOR A357, O-RIM6                                                                                                                                                                                                                                                                                                                                                                                                       | FAR<br>27-01312-008                                                                               | £270 WTR                                    |                         | TES LICHEL PACIFIC SOISSO                                                                                | 991990                                  |
| FAILURE MODE-ERTERMAL L<br>CESSIVELT. THE FAILURE M<br>E FELT LUBRIC/TOR RINGS.                          | FAILURE HODE-ERTERNAL LEAR. THE VS BERVOCYLINDER ASSEMBLY FAILED DURING CHECROUT MHDB IT MAS FOUND TO BE LEARING EX<br>Cessively. The Failure was attributed to Felt-Fiber Contanination of the O-Ring beals resulting from Bhredding of th<br>E Felt Lubricator Rings.                                                                                                                                                                        | FAILED DURING CHECKO<br>INCITOR OF THE O-RING                                                     | JT MACH IT 1                                | MS FOUND 1              | O DE LEARING EX<br>BMREDOING CF IN                                                                       |                                         |
| CORRECTIVE ACTION-ALTHO FIRE HAZAED PROBLEM, IT E FELT LUBRICATOR RINGS.                                 | CORRECTIVE ACTION-ALTHOUGH LEAKAGE RESULTING PRON THIS PAILUNE NODE IS SMALL AND DOES NOT CONSTITUTE A DEFLETION OR<br>Fire hazard problem, it has been recommended subject to air force approval, that terion rings be substituted for th<br>Felt lubricator rings.                                                                                                                                                                           | LURE HODE IS SMALL AL<br>IR FORCE APPROVAL, TM                                                    | ED DOES NOT<br>AT TEFLOR RI                 | CONSTITUTE              | A DEFLETION OR                                                                                           |                                         |
| MYDRAULIC-A/B<br>BUSTAINER/VERNIER                                                                       | SLV-89-04-4548-F<br>ACTUATOR ASSEMBLY, BERNO VALVE                                                                                                                                                                                                                                                                                                                                                                                             | FAR<br>E7-65514-617                                                                               | 431108 FA                                   | PACTORY YES             | YES LIGHEL PACIFIC 892460                                                                                | **                                      |
| FAILURE MODE-OUT OF SPE<br>TAM IN ACTIVE MALL READ<br>SERVOCYLINDER WAS FUNCT<br>UEYER, PIECES OF ORAMIE | FAILUAE HODE-OUT OF SPECIFICATION. THE SUSTAINER BERNOCYLINDER ASSEMBLY FAILED ON THE BLY MOCKUP MHON THE SUSTAINER TAN IN ACTIVE HALL READ SO MY ONER THE HAZIMADLE SSO MY. ALL ITENS CHECKED OUT WITHIN REQUIRENTS WHEN THE SERVOCYLINDER WAS FUNCTIONALLY TESTED, AND THE CAUSE OF THE REPORTED FAILURE COLLD NOT DEFINITIELY BE DETENHANCE. HO EVER, PIECES OF ORANGE PAINT FOUND IN THE BEAVOALLY MAY HAVE CAUSED THE REPORTED MAL SHIFT. | INDER ABSEMBLY PAILED<br>BSD MY. ALL ITEMS CME<br>ME REPORTED FAILUME C<br>MANE CAUSED INE REPORT | ON THE BLY<br>SAED COUT WIT<br>DALB NOT DEF | MOCKUP WAS<br>AIN REQUI | BLY MOCKUP WHEN THE BUSININGS<br>WITHIN REGUINDMENTS WHEN THE<br>BEFFINITELY BE DETENDINGS. HE<br>BHIFT. |                                         |
| CORRECTIVE ALTION-FAILURE NOT<br>& FOUND AND THE BYSTEM NET ALL                                          | N-FAILURE NOT CONFIDNED. THE HYDRAULIC BYBTEM OF BLY NOCKUP WAS EXAMINED FOR CONTAMINATION. NOME WAS 1815M HET ALL DECIFICATION REBUIRDENTS.                                                                                                                                                                                                                                                                                                   | DIEM OF BLV HOCKUP IM                                                                             | CXANINED I                                  | OR CONTAN               | MATION. NOTE IN                                                                                          |                                         |
| HTDRAULIC-A/B<br>BUBTAINEK/VERNIER                                                                       | 60A63-1083/A1-601-00-236                                                                                                                                                                                                                                                                                                                                                                                                                       | <b>CL8</b> 1                                                                                      | 1-V 0313                                    | 1.0<br>2.0              |                                                                                                          | • 11.                                   |
| FAILURE MODE-ERRATIC OF<br>ESB SECONDS TO E75 BECC                                                       | FAILUME MOGE-ERRATIC OPERATION OBCILLATIONS MENE MOTED ON THE SUBTAINEN MYDRAULIC SYSTEM PRESSURE MEASUMENENTS PROM<br>Ess secongs to ets beconds. Maximum Peak-To-Peak Value und 148Ps!.                                                                                                                                                                                                                                                      | THE BUBTAINEN HYDRAU<br>B 148PBI.                                                                 | LIC 8787ER (                                | M Janesja               | JABURENENTS PROM                                                                                         |                                         |
| BYBIEN EFFECT-NOME.                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                   |                                             |                         |                                                                                                          |                                         |
| VEHICLE EFFECT-WONE.                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                   |                                             |                         |                                                                                                          |                                         |
| CORRECTIVE ACTION-NOME.                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                   |                                             |                         |                                                                                                          |                                         |
|                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                   |                                             |                         |                                                                                                          |                                         |

the said with a will be a second of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the said of the sa

11 JUN 1100

|   |                                                                                                            | DIFFICULTIES REVIEW-HUDRALLIC STREM-AIRSCRIME                                                                                                                                                                                                                                                                                                                                                                       | AULIC SYSTEM-AIRBORI                                               | ¥                                         |                                 |            |                                               |       |
|---|------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|-------------------------------------------|---------------------------------|------------|-----------------------------------------------|-------|
|   | STSTER<br>SUS-STSTER                                                                                       | TEST/REPORT NUMBER<br>FAILED COMPONENT NAME                                                                                                                                                                                                                                                                                                                                                                         | DIF DATA SOURCE<br>PART HUMBER                                     | VEHICLE BITE PRI<br>DATE BIF TIME BIF OTH | 31.16<br>11.0 21.7              |            | VENDOR NAME<br>VENDOR PART NO                 |       |
|   | HTDRAULIC-A/B<br>BUSTAINER/VERNIER                                                                         | 66463-1088/A1-401-00-23E                                                                                                                                                                                                                                                                                                                                                                                            | PLIMT                                                              | 2320<br>421104                            | A-1<br>307                      | ÷ g        |                                               | **    |
|   | FAILURE MODE-ERRATIC OF<br>16. AT 345.5 SECONDS THE<br>. DISTURBANCES WERE NOTE                            | FAILUME MODE-ERRATIC OPERATION. AT 307 SECONDS SUSTAINER HYDRAULIC PUMP INLET PRESSURE BEGAN TO INCREASE FROM 76 PS<br>16. at 345.5 seconds the Pressure was at 111 PS16. At this time the pressure decreased to 25 PS16 within 0.8 seconds<br>. Disturbances were moted in arial acceleration and roll rate at this time.                                                                                          | DRAULIC PUMP INLET I<br>INE THE PRESSURE DE<br>E AT THIS TIME.     | PRESSURE &                                | EGAN TO                         | 2 ACRES    | IN D.S SECONDS                                |       |
|   | SYSTEM EFFECT-NOME.                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                    |                                           |                                 |            |                                               |       |
|   | WEHICLE EFFECT-NOME.                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                    |                                           |                                 |            |                                               |       |
|   | CORRECTIVE ACTION-NOME.                                                                                    | REASONS FOR THE DISTURBANCES WERE                                                                                                                                                                                                                                                                                                                                                                                   | NOT DETERMINED.                                                    |                                           |                                 |            |                                               |       |
| , | HTDRAULIC-A/B<br>SUSTAINER/VERNIER                                                                         | A-AS-G4-4536-F<br>VERHIER ACTUATOR ASSY, O-RING                                                                                                                                                                                                                                                                                                                                                                     | FAR<br>87-83318-805                                                | \$5                                       | FACTORY                         | 4 G        | YES LICHEL PACIFIC<br>NO                      | :     |
|   | FAILURE MODE-EXTERNAL L HYDRAULIC FLUID DURING N T AND CONTAMINATED THE                                    | XTERNAL LEAK. THE VE YAM SERVOCYLINDER ASSEMBLY FAILED DURING CHECKOUT IN THE FACTORY WHEN IT LEAKED<br>During manual actuation of the embine. The learage was caused by smeedding felt Lubricators which cu<br>Ted the O-RING Seals.                                                                                                                                                                               | LY FAILED DURING CH<br>EARAGE WAS CAUSED D'                        | ECACUT IN<br>T BANEDDIA                   | THE FACT                        | 204 E      | IEN IT LEAKED<br>ITOAS MICH CU                |       |
|   | CORECTIVE ACTION-THE P<br>INSTRUCTED TO EXAMINE AL<br>RATE FOR THIS FAILURE NO<br>HAT TEFLON RINGS BE SUBI | CORRECTIVE ACTION-THE FRATED FELT LUBRICATOR RIMES AND DISCREPANT O-RIMES MERE REPLACED. INSTECTION PERSONNEL MERE INSTRUCTED TO EXAMINE ALL O-RIMES UNDER MENIFICATION FOR SUMFACE DEFECTS BEFORE INSTALLATION. ALTHOUGH THE LEAAMEE RATE FOR THIS FAILURE MODE IS SHALL AND DOES NOT CONSTITUTE A FIRE HAZARD OR DEPLETION PROBLEM, IT WAS RECOMMENDED THAT TEFLOW RIMES DE SUBSTITUTED FOR THE FELT LUBRICATORS. | MEPANT O-RIMGS MERE<br>MFACE DEFECTS BEFORE<br>A FIRE MAZAND OR DE | REPLACED.<br>E INSTALLA                   | INSPECT<br>TION. AL<br>OBLEM. I | 104 P      | ERSONEL MERE<br>1 THE LEAKAGE<br>RECOMENDED T |       |
|   | HYDRAULIC-A/8<br>SUSTAINER/VERNIER                                                                         | D409367<br>ACCUPP.ATOR, O-RING                                                                                                                                                                                                                                                                                                                                                                                      | UTP-PET<br>27-00553-3                                              | <b>63</b> 10 <b>6.0</b>                   | CONVAIR                         | <b>5</b> 8 | YES PEACOCK<br>NO \$1305-3                    | 11980 |
|   | FAILURE MODE-LEAK VIEN<br>THE PHEUMATIC BIDE MAB<br>ON THE O-AING BEAL: REP.                               | VIERNAL. DURING THE MIMUS 30 DEGREE F. TEST, HYDRAULIC OIL LEARAGE ACROSS THE PISTON O-RING INTO NAS 17E ML. AFTER 50 CYCLES OF CPERATION. MES. IS 80 ML. MAN. THIS LEARAGE MMS CAUSED BY CRACKS MEF. FR854-2-057 B/M 207-0384.                                                                                                                                                                                     | EST, HYDRAULIC OIL :                                               | LEAKACE AC<br>X. THIS LI                  | ACASE THE                       | 1          | DN O-RING INTO<br>NED BY CRACKS               |       |
| 1 | CORRECTIVE ACTION-MONE-                                                                                    | ION-HOME-SCHEDULED TESTING IS TO CONTINUE.                                                                                                                                                                                                                                                                                                                                                                          |                                                                    |                                           |                                 |            |                                               |       |
|   | HTDRAULIC-A/B<br>BUSTAIMER/VERMIER                                                                         | 60.461-1092.791-602-00-116                                                                                                                                                                                                                                                                                                                                                                                          | PLIONT                                                             | 13 C                                      | = =                             | 5 8        |                                               | 1     |
|   |                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                    |                                           |                                 |            |                                               | _     |

STRICH EFFECT-DEPLETION OF LIGUID BUPPLY. PRESSURE IN THE BUSTAINER STRICH WAS LOST BY 140 SECONDS AND IN THE YEARS EA STRICK BY 167 SECONDS.

PAILUNE MODE-LEAN-EXTERNAL, MYDRAULIC PRESSURES BEGAN DECAPING SHORTLY AFTER THE BESINING OF BOOSIER JETTISON.

|   | 9901 Norm                                                                                                           | DIPPICULTIES REVIEW-MYDRAULIC SYSTEM-AINSORME                                                                                                                                                                                                                                                                                                                                  | IAULIC SYSTEM-AIRBOT                                                                                                                                   | ¥                                         |                                     |       |                              |                                 |       |
|---|---------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|-------------------------------------|-------|------------------------------|---------------------------------|-------|
|   | 37.5TEH<br>\$U6-57.5TEH                                                                                             | TESTAREPORT HUMBER<br>FAILED COMPONENT MANE                                                                                                                                                                                                                                                                                                                                    | DIF DATA BOURCE<br>PART WUNDER                                                                                                                         | VENICLE BITE PRI                          | \$11E<br>71ME DIF                   | PRI   | VENDOR HANG<br>PENDOR PART   | VENDOR NAME<br>VENDOR PART NO   |       |
|   | VEHICLE EFFECT-LOSS OF VEHIC<br>MES SHUT DOWN AT ESS SECONDS.                                                       | VEHICLE EFFECT-LOSS OF VEHICLE STABILITY. VEHICLE STABILITY HAS LOST BY 140 SECONDS. THE SUSTAINER AND VERHIER ENGI<br>Es shut down at est seconds.                                                                                                                                                                                                                            | 7 MAS LOST BY 140 M                                                                                                                                    | COMDS. THE                                | BUSTAIN                             | # P   | INEBA C                      | En Enti                         | ****  |
|   | CORRECTIVE ACTION-NOME.                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                        |                                           |                                     |       |                              |                                 |       |
|   | HTDRAVE IC-A/B<br>BUSTAINER/VERNIER                                                                                 | COA63-0680/83-403-00-14E<br>8USTAINER ACTUATOR ASST                                                                                                                                                                                                                                                                                                                            | PLIMT<br>27-01314                                                                                                                                      | 1420                                      | 136.9                               | 20    | 1 OMEL                       | YES LIGHEL PACIFIC              | •     |
|   | PAILURE MODE-OUT OF EXPECTED TE<br>PPEAKED TO BE MISALIGMED IN YAM,                                                 | FAILUKE MODE-OUT OF EXPECTED TEST VALUE. THE BUSTAINER EMBINE EVIDENCED A YAN OFFSET AT MULL POSITION. THE EMGINE<br>Peared to be misalighed in Yan.                                                                                                                                                                                                                           | INE EVIDENCED A YAM                                                                                                                                    | <b>OFF8£</b> 7 AT                         | MILL POB!                           | 110   | . T.                         | MC1 MC A                        |       |
|   | STSTEN EFFECT-NONE.                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                        |                                           |                                     |       |                              |                                 |       |
|   | WEHICLE EFFECT-LOSS OF W<br>SYSTEM AFTER BECO. THE FL                                                               | VEHICLE EFFECT-LOSS OF VEHICLE STABILITY. THE ENGINE IMPARTED A YAW ACCELERATION MADEN NALLED BY THE FLIGHT CONTROL<br>Staten after beco. The Flight control system subsequently stabilized the Vehicle.                                                                                                                                                                       | IED A YAW ACCELERATI<br>TABILIZED THE VEHICL                                                                                                           | G. 1602 P.                                | LES 87 1                            | Ä     | 3                            | ON TROL                         |       |
|   | CORRECTIVE ACTION-NOME.                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                        |                                           |                                     |       |                              |                                 |       |
|   | HYDRAULIC-A/B<br>SUSTAINER/VERNIER                                                                                  | A-SD-04-4537-F                                                                                                                                                                                                                                                                                                                                                                 | FAR<br>27-83312-809                                                                                                                                    | 1096                                      | UTR MABE                            |       | IOEL                         | LIGHEL PACIFIC                  | ***   |
|   | FAILURE MODE-EXTERNAL LE<br>ED MTDFAULIC FLUID. THE F.                                                              | FAILURE MODE-EXTERNAL LEAK. THE VERNIER BERVOCYLINDER ABBEMBLY FAILED DURING MIBBILE CHECKOUT IN MAD 2 WHEN IT LEAK<br>Ed htdraulic fluid. The Failure was attributed to contamination of the o-ring beals by Buredoing Pelt Lubricators.                                                                                                                                      | MLY FAILED DURING P                                                                                                                                    | ISSILE CHE                                | CKOUT IN<br>REDOING 7               | 33    | E WEN                        | IT LEAK<br>TONB.                |       |
|   | CORRECTIVE ACTION-THIS ACTUATOR WAS MADE<br>AYING OF THE FELT DURING ASSEMBLY, IT MAS<br>EPLACED WITH TEFLON RINGS. | CORRECTIVE ACTION-THIS ACTUATOR WAS MADE IN 1982. IN MARCH 1963 THE VENDOR REVINED THE ABBENDLY METHOD TO REDUCE F<br>ATING OF THE FELT DURING ASSEMBLY. IT WAS RECOMEMDED, BUBJECT TO AIR FORCE APPROVAL, THAT THE FELT LUBRICATORS BE<br>EPLACED WITH TEFLOW RINGS.                                                                                                          | IN 1962. IN MARCH 1963 THE VENDOR REVISED THE ABELGLY METHOD TO REDUCE FR<br>RECOMENDED, BUBJECT TO AIR FORCE APPROVAL, THAT THE FELT LUBRICATORS BE R | LEE THE A                                 | SECOLY THE PER                      | 2 - T | N TO RE                      | DUCE FR                         |       |
|   | HTDRAULIC-A/B<br>BUS.AIMER/VERNIER                                                                                  | A-90-04-4538-F<br>VFANIER ACTUATOR ABBY, O-RIMS                                                                                                                                                                                                                                                                                                                                | FAR<br>E7-0531E-008                                                                                                                                    | 1097                                      | WTR<br>WTRIMBE                      | 2 0   | IONEL                        | VES LIGHEL PACIFIC 001350<br>NO | ••131 |
| 1 | FAILURE MODE-EXTERNAL LE<br>MISSILE 109F IN MAB E MM<br>LT CONTAMINATION. CONTAID<br>GOUINED.                       | FAILURE MOCE-EXTERNAL LEAK. THE VERNIER ACTUATOR ASSEMBLY FAILED DURING PERPORMANCE OF FILL-AND-BLEED PROCEDUMES ON<br>Hissile 1987 in mas & when it leaked mydraulic fluid, the cause of the learabe was dambeed o-rings abbravated by pe<br>Lt comiamination, contributing to the shredding of the Pelt Lubricators, was that they mere not cut on an amble as a<br>Equired. | FAILED DURING PERPOI<br>CAUSE OF THE LEARAND<br>LUBRICATORS, MAS TO                                                                                    | HANCE OF P.<br>LAND DANAGE<br>LAT THEY WE | 11.1-445-6<br>ED O-RIM<br>RE NOT CO | 8 4 5 | PROCED<br>BRAVATE<br>AN ANG  | UNES ON PE                      |       |
|   | CORRECTIVE ACTION-A NICR<br>LD PROBLEKS, INSPECTION P<br>NSPECTION PERSONNEL MERE                                   | COMECTIVE ACTION-A NICAGGOPIC EXAMINATION OF O-RINGS IN STOCK SMONED A LANGE PERCENTAGE TO BE DEFECTIVE DUE TO MO<br>LD PRODLEMS. INSPECTION PERSONNEL WERE INSTRUCTED TO MICAGGORICALLY INSPECT ALL O-RINGS FOR DEFECTS. ASSEMBLY AND I<br>MAPECTION PERSONNEL MERE INSTRUCTED IN THE CORRECT METHOD OF PORMING CUTTING, AND INSTALLING FELT LUBRICATOR HINGS.                | STOCK SHOWED A LANG<br>COPICALLY INSPECT A<br>PORMING CUTTING, (                                                                                       | PERCENTAG<br>L O-RIMES<br>IND INSTALL     | T TO BE C                           | 25. E | ABBENDU<br>ABBENDU<br>ICATOR | E 10 HO<br>V A'E 1<br>RIMES.    |       |

GENERAL BYNAMICS

**.** 

\* \*\*

.

CONVAI

15 JUN 1986

| _       |
|---------|
| 8       |
| -       |
| •       |
| =       |
| -       |
| 0       |
| •       |
| =       |
| ONVA IR |
| ≥       |
| ×       |
| ŭ       |
| _       |
|         |
|         |
|         |
|         |
|         |

|                                               |                                                                      | ******                             |                                                                                                                 |                                                                                             | 221000                             |                                                                                               |                                                                                                                                                                                                                                           | i                                  |                                                                                                                                                                                                                                              |                                                                     | :                                                           |                                                                                                                                                                                               |
|-----------------------------------------------|----------------------------------------------------------------------|------------------------------------|-----------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|------------------------------------|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|-------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                               | WENICLE BITE PRI VENDOR MANE<br>DATE BIP TINE BIF OTH VENDOR PART NO | ORY YES TITPLEX<br>NO Sesse-s      | FAILING IN PATICUE.                                                                                             | HOSE DESIGNED.                                                                              | ORY YES TITEFLEX<br>NO 94932-5     | SILVER BRAZING.                                                                               | OUTSIDE DIAMETER AT 60<br>FIVE OF THE SIX HOLES.                                                                                                                                                                                          | YES BYERER<br>NO 13000             | 008E 111E MERE 001-0F-T<br>8). REFER TO FAR 039. T                                                                                                                                                                                           |                                                                     | ORY YES LIGHEL PACIFIC                                      | IT ASSOCIATED WITH CHANS                                                                                                                                                                      |
| BTEH-AIRBORNE                                 | DIF DATA SOUNCE WENTCLE BE FANT NUMBER DATE BIF TIME                 | 13-9 GALOGE PACTORY                | NA PRT DUE TO WINE BRAID                                                                                        | LOTS 6, 7, 8 AND 9. NEW                                                                     | 13-9 FACTORY                       | PEARULE DUE TO IMPERUATE                                                                      | RING DRILLED THROUGH THE<br>E MUST BE VISIBLE THROUGH                                                                                                                                                                                     | 63:10E1 60/C                       | STATE FLOW AND THE OWERSHOOT RESPONSE TINE (SPEC ALLOMANE IS SEMILLISECONDS). REFER                                                                                                                                                          |                                                                     | 1990 FACTORY<br>4-819 651016                                | INTERNITTENT HULL BROP-OU<br>E.                                                                                                                                                               |
| DIFFICULTIES REVIEW-HYDRAULIC SYSTEM-AIRSCAME | TEST/REPORT NUMBER BIF DA                                            | PAR<br>87-08861-8                  | FAILURE MODE-STRUCTURAL-BECAME CONTONTED DURING PLEXING CYCLES DURING PRT DUE TO WIRE BRAID FAILING IN FATIGUE. | ON-SURVEY 102-63 WAS ISSUED TO REJECT ALL UNITS FROM LOTS 6, 7, 8 AND 9. NEW HOSE DESIGNED. | FAR<br>87-06561-8                  | AK EXTERNAL-GAMEOUM MITROGEN LEAKAGE AT END FITTING PERRULE DUE TO INNDEMUNTE BILVER BRAZING. | CORECTIVE ACTION—BRAZE PENETRATION CONTROLLED BY A MODIFIED BRAID RING DRILLED THROUGH THE OUTSIDE DIAMETER AT GO<br>Degree increments. Draming calls out that both graid and silver braze must be visible through five of the six holes. | HITER VALVE 27-04206-1             | FAILURE MODE-OUT OF-TOLERANCE. DURING PRI TESIS THE STEADY STATE FLOW AND THE OWERSHOOT RESPONSE TING<br>Learnce, overshoot ting varied from 60 to 126 milliseconds (spec allowable is 15 milliseconds). Refer<br>187 specimen s/v 206-1837. | CORRECTIVE ACTION-ECP 7888 SUBMITTED TO RELAK SPECIFICATION LINITS. | FAR<br>SUSTAINER ACTUATOR ASST, SERVOYALV 27-05514-010<br>E | FAILURE HODE-LEAK. THE BERYO VALVE ON THE ACTUATOR DEHONSTRATED AN INTERNITTENT MULL BROP-OUT ASSOCIATED WITH CHAMS<br>Is in Hidraulic supply pressure, pailure has caused by O-rins learace. |
|                                               | =                                                                    | 3LV-99-10-226-F<br>ROSE ASSEMBLY   | STRUCTURAL-BECAME CONTORTED                                                                                     | TION-SURVET 102-65 MAS 1881                                                                 | LV-A9-10-213-F<br>FR HOSE ASSEMLY  | LEAK EXTERNAL-GASCOUS NITRC                                                                   | TION-BRAZE PENETRATION CONT<br>NTS. DRAWING CALLS OUT THAT                                                                                                                                                                                | ER VERNIER FLOM LINITER VALVE      | FALLURE MODE-OUT OF-TOLERANCE, DURING PR<br>OLERANCE, OVERSHOOT TIME VARIED PRON 60 1<br>EST SPECIMEN S/V 206-1537.                                                                                                                          | HON-ECP 7688 BUBNITTED TO                                           |                                                             | LEAK. THE BERYO VALVE ON TH<br>C SUPPLY PREBBUKE, FAILURE                                                                                                                                     |
|                                               | 8181EN<br>818-818                                                    | HYDRAULIC-A/B<br>BUSTAINER/VEANIER | FAILURE MODE-1                                                                                                  | CORRECTIVE ACTI                                                                             | HYDRAULIC-A/B<br>BUSTAINER/VERNIER | FALLURE MODE-LE                                                                               | CORRECTIVE ACT<br>DEGREE INCREMEN                                                                                                                                                                                                         | MYDRAULIC.A/B<br>SUSTAINER/VERNIER | FAILURE MODE-OU<br>QLERANCE, OVERSH<br>EST SPECIMEN S/V                                                                                                                                                                                      | CORRECTIVE ACT                                                      | HTDRALLIC-A/B<br>BUSTAINER/VERNIER                          | FAILURE MODE-LI                                                                                                                                                                               |

CORRECTIVE ACTION-60/C SECURED A VENDOR DESIGN CHANNE INCORPORATED INTO NEW AND REPAIRED SERVOVALVES AFTER AFRICAS 62. THE SERVOYALVE SEAL CHANNE REPLACES THE LARGE CROSS-SECTION O-RING AND NASHER UNDER THE CONTROL-PRESSURE HOIZLE WITH A SHALL CROSS-SECTION O-RING AND A BRASS SPACER IN PLACE OF THE ALWINUM WASHER.

| 9981 207 41                                                            | DIFFICULTIES REVIEW-HYDRAULIC SYSTEM-AIRBORNE                                                                                                                                                                                                                                                                                                                   | HAULIC SYSTEM-AIRBOT                                                 | ¥                                       |                        |                                         |                                                     | ı             |
|------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|-----------------------------------------|------------------------|-----------------------------------------|-----------------------------------------------------|---------------|
| 231678<br>201674-016                                                   | TESTAEPOST NUMBER<br>FAILED COMPONENT NAME                                                                                                                                                                                                                                                                                                                      | DIF DATA BOURCE<br>PART NUMBER                                       | VEHICLE<br>DATE DIF                     | 817E<br>TIME DIF       | PRI VE                                  | BITE PRI VENDOR NAME<br>TIME BIF OTH VENDOR PART NO |               |
| MYDRAULIC-A/B<br>SUSTAINER/VERNIER                                     | A-AB-04-4482-F<br>SUSTAINER ACTUATOR ASST, O-RING                                                                                                                                                                                                                                                                                                               | FAR<br>87-05354-010                                                  | 2450<br>631011                          | FACTORY                | 11 02                                   | YES LIGHEL PACIFIC NO                               |               |
| FAILURE MODE-LEAK-ERT<br>ACTUATOR, FURTHER INVE                        | -EXTERMAL. A MYDRAULIC LEAR MAS REPORTED IN THE SUSTAINER ACTUATOR BETWEEN THE SERWOVALVE AND THE INVESTIGATION REVEALED THAT THREE O-RIMS WERE DANAGED. POSSIBILITY OF INCORRECT O-RIMS SIZES INS                                                                                                                                                              | IN THE BUSTAINER ACT<br>I WERE DAMAGED. FOGS!                        | TWATON BETW                             | EEN THE S<br>INCORRECT | LER VOVA                                | LVE AND THE<br>68 812E8 1NB                         |               |
| CORRECTIVE ACTION-PRO<br>ALLATION AND ALSO TO V                        | I-PRODUCTION AND INSPECTION DEPARTMENTS WERE INSTRUCTED TO CHECK ALL O-RIMES FOR DAMSE BEFORE INSTITE VERIFY THAT THE CORRECT SIZES AME USED.                                                                                                                                                                                                                   | AE INSTRUCTED TO CHE                                                 | ICK ALL O-R                             | INGS FOR               | DAMAGE                                  | BEFOR INST                                          |               |
| HTDRAULIC-A/B<br>BUSTAINER/VERNIER                                     | 6991901.1<br>Hydraulic Plex Mose Abby.                                                                                                                                                                                                                                                                                                                          | UTP-PR7<br>R7-06571-43                                               | 69100                                   | OTHER                  | YES AEROQUIP<br>NO 677025-6             | AEROGUIP<br>677025-6-0161                           | <b>667036</b> |
| FAILURE MODE-OUT OF T<br>RCENT OF 175 UMPRESSUR                        | OF TOLERANCE, DURING INITIAL ACCEPTANCE TEST THE UNIT WHEN PRESSURIZED TO 3000 PSIG. EXCEEDED 6 PE<br>:SSURIZED WILUME, 6 PERCENT FOR THIS UNIT IS 2.46 CC.                                                                                                                                                                                                     | 1287 THE UNIT WHEN PY<br>18 8.48 CC.                                 | E S S UM 1 2 CD                         | 10 3000                | .916.                                   | XCEEDED • PE                                        |               |
| CORRECTIVE ACTION-MONE-TEST TERNINATED.                                | €-TEST TERMINATED.                                                                                                                                                                                                                                                                                                                                              |                                                                      |                                         |                        |                                         |                                                     |               |
| HYDRANE IC-A/B<br>SUSTAINER/VERMIER                                    | LV-98-04-4580-F<br>VERNIEP ACTUATOR ABSÉMBLY                                                                                                                                                                                                                                                                                                                    | FAR<br>27-85311-805                                                  | 630630                                  | ETA                    | 33                                      | LIGHEL FACIFIC                                      | 10,200        |
| FAILURE MODE-CRRATIC<br>MAEN THE VERNIER ENGI<br>RESUMED. THE CAUSE OF | FAILUME MODE-ERRATIC OPERATION. THE VERNIER ACTUATOR ABBENBLY REPORTEDLY FAILED DURING PERFORMANCE OF A FACT AT ETR<br>Imen the Vernier ensine failed to respond to control signals for 30 to 40 seconds, after imich proper operation was<br>Resumed. The cause of this failure was not determined as analysis of the bernoctlinder revealed no discrepancies. | GLY REPORTEDLY FAILL<br>LES POR 30 TO 40 SECU<br>NALTRES OF THE BERW | ID DURING P<br>MOS. AFTER<br>XYLINDER R | CATCALED -             | 7 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 | FACT AT ETR<br>PERATION UND<br>REPARCIES.           |               |
| CORRECTIVE ACTION-HOME.                                                | 4. SINCE THE FAILURE OF THIS ACTUATOR ASSEMBLY WAS NOT CONFIRMED.                                                                                                                                                                                                                                                                                               | 1 ASSEMBLY WAS NOT CO                                                | DAFTANCO.                               |                        |                                         |                                                     |               |
| HTDRAULIC-A/B<br>BUSTAINER/VERNIER                                     | F148254/PZ-4CO-02-263<br>ACTUATOR ASSEMBLY                                                                                                                                                                                                                                                                                                                      | COMPOSITE-J FACT<br>E7-85311-805                                     | £430<br>4304£7                          | 1.E<br>£77.8           | 765 C                                   | VES LIGHEL PACIFIC                                  | •             |
| FAILURE MODE-FAIL<br>BATA MAS MORMAL BEF                               | DURING OPERATION. DATA INDICATED LOSS OF VI ENGINE POSITION CONTROL FROM 277.5 TO 427.7 SECONDS.                                                                                                                                                                                                                                                                | " YI EMEINE POAITION                                                 | CONTROL FR                              | St 277.5               | 5 45 7                                  | .7 45.0008.                                         |               |
| STSIEM EFFECT-ERRAFIC                                                  | ATIC OPERATION.                                                                                                                                                                                                                                                                                                                                                 |                                                                      |                                         |                        |                                         |                                                     |               |
| WEFICLE EFFECT-COMMAN                                                  | WENICLE EFFECT-COMMANDS NOT RECEIVED OR SENT PRON 277.5 TO 487.7 SECONDS.                                                                                                                                                                                                                                                                                       | 5 487.7 SECONDS.                                                     |                                         |                        |                                         |                                                     |               |
| CORRECTIVE ACTION-REP                                                  | CORRECTIVE ACTION-REPLACED A/P BERNO CANIBIER AND ENGING ACTUATOR.                                                                                                                                                                                                                                                                                              | ACTUATOR.                                                            |                                         |                        |                                         |                                                     |               |

| NOTICE THE TESTATEMENT OF TESTATEMENT NAMES OF DATA BOOKET WORLD.  ***STATEMENT NAMES OF TESTATEMENT NAMES OF TEST  |   |                                                                                                           |                                                                                                                    |                                                               |                                    |                                       |                       |                                         |   |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|-----------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------|------------------------------------|---------------------------------------|-----------------------|-----------------------------------------|---|
| STATIONE WOOL-STRUCTURAL. SUSTINGENERING WITHOUT RETURN PRESUND BROWNED TO 8 PAS DURING THE STASSING SLACKOUT S A RESULT OF A COMPLETE RETURN LINE SPECIALISE WITHOUT STASSING SLACKOUT S A RESULT OF A COMPLETE RETURN LINE SPECIALISE WITHOUT STASSING SLACKOUT S A RESULT OF A COMPLETE RETURN LINE SPECIAL STASSING SHAPE STASSING SHAPE STASSING SHAPE STASSING SHAPE STASSING SHAPE STASSING SHAPE STASSING SHAPE STASSING SHAPE STASSING SHAPE STASSING SHAPE STASSING SHAPE STASSING SHAPE STASSING SHAPE STASSING SHAPE STASSING SHAPE STASSING SHAPE STASSING SHAPE STASSING SHAPE SHAPE STASSING SHAPE STASSING SHAPE STASSING SHAPE SHAPE SHAPE STASSING SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHAPE SHA  |   | SYSTEM<br>SUG-SYSTEM                                                                                      | TEST/REPORT NUMBER<br>FAILED COMPONENT NAME                                                                        | DIF DATA SCURCE<br>PART NUMBER                                | VEHICLE<br>DATE DIF                | 817E<br>713E DIF                      | # 5<br>F 5            | SOR HANE                                |   |
| PAILURE MOCE-STRUCTURAL. SUSTRINGEN/WENLIGH HTDRAULIC RETURN PRESAURE DROUPED TO 0 PAS DIRING THE STASSING SALCHOOLTS A A RESULT OF A COMPLETE RETURN LINE SEVERANCE.  3 STATUT RECEIVED THE TRETURN LINE SEVERANCE.  3 STATUT RECEIVED THE TRETURN LINE SEVERANCE.  4 A RESULT OF A COMPLETE STABILITY.  COMPLETE FFECT-LOSS OF VEHICLE STABILITY.  COMPLETE FFECT-LOSS OF VEHICLE STABILITY.  COMPLETE FFECT-LOSS OF VEHICLE STABILITY.  COMPLETE FFECT-LOSS OF VEHICLE STABILITY.  COMPLETE FFECT-LOSS OF VEHICLE STABILITY.  COMPLETE FFECT-LOSS OF VEHICLE STABILITY.  COMPLETE FFECT-LOSS OF VEHICLE STABILITY.  COMPLETE FFECT-LOSS OF VEHICLE STABILITY.  COMPLETE FFECT-LOSS OF VEHICLE STABILITY.  FALLUSE WOCK-OUT OF SPECIFICATION ASSTORED FALLOWER WOO CONTINUED. INCOMENT PEDBACE TABIDINAS FOR EXAMINATION ASSTORED THANDOLOGY TABIDINAS FOR EXAMINATION ASSTORED.  SISPLACEMENT CAUGED THE EXCESSIVE DAMINE RECORDS FALLOWER TRANSPORCE TABIDINAS FOR EXAMINATION ASSTORED.  SISPLACEMENT CAUGED THE EXCESSIVE DAMINE PECHNICAL INCOMPLETE TRANSPORCE TABIDINAS FALLOWER TABIDINAS FOR EXAMINATION OF LIGO OF THE COMMINATION OF THE COMMINATION OF LIGO OF THE COMMINATION OF LIGO OF THE COMMINATION OF LIGO OF THE COMMINATION OF LIGO OF THE COMMINATION OF LIGO OF THE COMMINATION OF LIGO OF THE COMMINATION OF LIGO OF THE COMMINATION OF LIGO OF THE COMMINATION OF LIGO OF THE COMMINATION OF LIGO OF THE COMMINATION OF LIGO OF THE COMMINATION OF LIGO OF THE COMMINATION OF LIGO OF THE COMMINATION OF LIGO OF THE COMMINATION OF LIGO OF THE COMMINATION OF LIGO OF THE COMMINATION OF LIGO OF LIGO OF THE COMMINATION OF LIGO OF THE COMMINATION OF LIGO OF LIGO OF LIGO OF LIGO OF LIGO OF LIGO OF LIGO OF LIGO OF LIGO OF LIGO OF LIGO OF LIGO OF LIGO OF LIGO OF LIGO OF LIGO OF LIGO OF LIGO OF LIGO OF LIGO OF LIGO OF LIGO OF LIGO OF LIGO OF LIGO OF LIGO OF LIGO OF LIGO OF LIGO OF LIGO OF LIGO OF LIGO OF LIGO OF LIGO OF LIGO OF LIGO OF LIGO  |   | MTDRAULIC-A/B<br>Bustainer/Vermier                                                                        | 60/463-0968/CI-501-00-71<br>TUBING                                                                                 | FLIMT                                                         | 71E                                | C1<br>187.5                           | ž g                   |                                         | • |
| TABLE EFFECT-CAS OF VEHICLE STABILITY.  CORRECTIVE ACTION-WANDOM.  WENTER EFFECT-CAS OF VEHICLE STABILITY.  CORRECTIVE ACTION-WANDOM.  WENTER EFFECT-CAS OF VEHICLE STABILITY.  CORRECTIVE ACTION-WANDOM.  CORRECTIVE ACTION-WANDOM.  TAMASOURER  FAM.  WENTER EFFECT-CAS OF VEHICLE STABILITY.  CORRECTIVE ACTION-WANDOM.  THANSOURER  TAMASOURER  TA  |   | FAILURE MODE-STRUCTURAL.                                                                                  | SUSTAINER/VERNIER MYDRAULIC RETURN<br>RETURN LINE SEVERANCE,                                                       | PAESSURE DAGPED T                                             | ŭ 184 0 0                          | A1 36 146                             | 87A61W                | BLACKOUT A                              |   |
| WENTELE EFFECT-CAS OF VENICLE STABILITY.  COMECTIVE ACTION-LORMORN.  WENTER ACTION-LORMORN.  FAILURE WOOL-OUT OF SPECIFICATION-REPORTED. FEEDBACK ET-9551E-009 6500E1 NO  BISTACCHEMIC ACTION-REVIEW READINES, TO PREVENT MALES REPORTED. INCOMECT PEEDBACK TRANSDUCER ADJUSTMENT PROCESSES CAUSED PROGELIN.  ISSCEPHAY CAUSED PROGELIN.  CORRECTIVE ACTION-REVIEW SHORED THE ACTUATION ASSP PEEDBACK TRANSDUCER MALE AND PRASSING TRANSDUCER ADJUSTMENT PROCESSES CAUSED PROGELIN.  ITTED ON THIS ACTUATION ASSENDED. TO PREVENT RECAMBLINE OF THIS OMISSION. TRANSDUCER MALE AND PRASSING TRANSDUCER ADJUSTMENT PROCESSES CAUSED PROGELIN.  ATTOMALICAAN WENNER PLOAD INFERDACK TRANSDUCER MALE AND PRASSING TRANSDUCER ADJUSTMENT PROCESSES CAUSED PROGELIN.  ATTOMALICAAN WENNER PLOAD INFERDACK TRANSDUCER MALE AND PRASSING TRANSDUCER AND AND PRASSING TRANSDUCER AND AND PRASSING TRANSDUCER AND AND PRASSING TRANSDUCER AND AND PRASSING TRANSDUCER AND AND PRASSING TRANSDUCER AND AND AND AND AND AND AND AND AND AND                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |   | STSTEM EFFECT-DEPLETION<br>TO START DECAYING S.1 SEC                                                      | OF LIEUID SUPPLY. LOSS OF HYDRAULIC ONDS AFTER STASING AND PLIEMT CONTR                                            | FLUID CAUSED SUSTA                                            | INER/VERNI<br>BECCADS.             | 0 PM 131                              | ) SCHARE              | E MESSURE                               | · |
| MUDRANCIEWAS ACTION-LUARNOAM.  WERRIER A-89-04-444-F  WARRIER ACTION-LUARNOAM.  FAILURE WOOD-COLUTOR SACREATE ACTUATION ASSESSALY, PERDACE P-93312-609  FAILURE WOOD-COLUTOR SPECIFICATION-REPORTEDLY, DURING MAPCHE LOCK-SEE RUM, WERRIER & YAM OFTICAL RELDINGS FOR EXGIN TO SACREATE CAUSED FOR EXCUSED FOR EXC  |   | WEHICLE EFFECT-LOSS OF V                                                                                  | EMICLE STABILITY.                                                                                                  |                                                               |                                    |                                       |                       |                                         |   |
| HUDRALLIC-A/B  SUSTAINER/VERIER  NEWRIER ACTUATOR ABBEBLY, PEEDBAC EY-BSSIE-609  SUSTAINER/VERIER  R TRANSDUCER  R TRANSDUCER  FAILURE WODE-OUT OF SPECIFICATION-REPORTEDLY, DARING MAYOR LOCK-REE RUM, WEMBER E YAM OFFICAL READINGS FOR EXGIN DISPLACEMENT WERE OUT OF SPECIFICAL LIMITS. REPORTED. INCOMECT PEEDBACK TRANSDUCER ADJUSTMENT PROCESSALING ACCORDING. PRESENCE TRANSDUCER ADJUSTMENT PROCESSALING ACCORDING.  SACRECTIVE ACTION-REVIEW SHORED THE ACTUATOR ASST PREDBACK TRANSDUCER MALL AND PHASING TESTS AND BEE  INCOMPOSATED HA ALL ACTUATOR ASSEMBLY PERFORMENTE OF THIS OSISSION. TRANSDUCER MALL AND PHASING TESTS AND BEE  MODALLIC-A/B  SUSTAINER/VERHIER  FAILURE HODE-OUT OF TOLERANCE. DURING FRESUDEY RESPONSE TEST. STATIC FLOW 41.0E VS. SPECIFICATION OF ALLO SECONDS WERE OUT OF TOLERANCE. SIMILAR FAILURES ON ATE STATIC FLOW 41.0E VS. SPECIFICATION OF ALSO SHORED OUT OF TOLERANCE. SIMILAR FAILURES ON ATE STALINE OUT OF TOLERANCE. SIMILAR FAILURES ON ATE STALINE OF TOLERANCE. SIMILAR FAILURES ON ATE STALINE OF THE STALINE SHOULD NOT BE CORNIED FOR A STALINE POOR CONSIST AND STALINE SHOULD NOT SECONDS WERE OUT OF TOLERANCE. SIMILAR FAILURES ON A STALINE WAS ASSISTED WAS ASSISTED WAS ASSISTED WAS ASSISTED WAS ASSISTED WAS ASSISTED WAS ASSISTED WAS ASSISTED WAS ASSISTED WAS ASSISTED WAS ASSISTED WAS ASSISTED WAS ASSISTED WAS ASSISTED WAS ASSISTED WAS ASSISTED WAS ASSISTED WAS ASSISTED.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |   | COPRECTIVE ACTION-LAKINON                                                                                 | á                                                                                                                  |                                                               |                                    |                                       |                       |                                         |   |
| PAILURE WOE-OUT OF SPECIFICATION-REPORTEDLY, DURING MACHE LOOK-BEE RUM, WEMIER R TAN OPTICAL READINGS FOR EXGINED DISPARCHMENT WERE COST OF SPECIFIED LIMITS, REPORTED FAILURE NOT CONTRACT TRANSDUCER ADJUSTMENT PROCEED ACCESSATIVE CAUSED FROBEIGN.  15.CEFART CAUSED FROBEIGN.  15.CEFART CAUSED FROBEIGN.  16.CEFACTIVE CALISON-REVIEW SHOWED THE ACTUATOR ASSY PEEDBACK TRANSDUCER MALL AND PRASING TESTING MAS INADVERTEDLY OF THIS ORIGINAL AND PRASING TESTING MAS INADVERTEDLY OF THIS ORIGINAL AND PRASING TESTING MAS INADVERTEDLY OF THIS ORIGINAL AND PRASING TESTING MAS INADVERTEDLY OF THIS ORIGINAL AND OFFENDED IN ALL ACTUATOR ASSENDER. TO PREVENT RECOMBER OF THIS ORIGINAL AND PRASING TESTING MAS INADVERTEDLY OF THIS ORIGINAL AND PRASING TESTING MAS INADVERTEDLY OF THIS ORIGINAL AND OFFENDED IN ALL ACTUATOR ASSENDER. TO PREVENT RESUDENCY RESPONSE TESTING TO THE GAOSE GO.C TESTING THE MAS INADVERTED IN ALL ACTUATOR OF THIS ORIGINAL AND OFFENDED IN ALL ACTUATOR OF THIS ORIGINAL ASSENCE. DININA PALLUKES ON ATE GAODE THE TOP AND THE TANDER OF THE GAODE THE TOP AND ASSENCE. DININA PALLUKES ON A SOURCE OF ET-04204-1. REFRE TO PAR 504-4484-P  16. COR ET-04204-1. REFRE TO PAR 504-4484-P  17. COR ET-04204-1. REFRE TO PAR 504-4484-P  18. COR ET-04204-1. REFRE TO PAR 504-4484-P  18. COR ET-04204-1. REFRE TO PAR 504-4484-P  18. COR ET-04204-1. REFRE TO PAR 504-4484-P  18. COR ET-04204-1. REFRE TO PAR 504-4484-P  18. COR ET-04204-1. REFRE TO PAR 504-4484-P  18. COR ET-04204-1. REFRE TO PAR 504-4484-P  18. COR ET-04204-1. REFRE TO PAR 504-4484-P  18. COR ET-04204-1. REFRE TO PAR 504-4484-P  18. COR ET-04204-1. REFRE TO PAR 504-4484-P  18. COR ET-04204-1. REFRE TO PAR 504-4484-P  18. COR ET-04204-1. REFRE TO PAR 504-4484-P  18. COR ET-04204-1. REFRE TO PAR 504-4484-P  18. COR ET-04204-1. REFRE TO PAR 504-4484-P  18. COR ET-04204-1. REFRE TO PAR 504-4484-P  18. COR ET-04204-1. REFRE TO PAR 504-4484-P  18. COR ET-04204-1. REFRE TO PAR 504-4484-P  18. COR ET-04204-1. REFRE TO PAR 504-4484-P  18. COR ET-04204-1. REFRE TO PAR 504-4484-P    |   | HYDRAULIC-A/B<br>BUSTAINER/YERNIER                                                                        | A-99-04-444A-F<br>Vermier Actuator Abbenely, Puedbac<br>R Transducer                                               | FAR<br>: 27-25312-008                                         | 46E<br>650821                      | FACTORY                               | 7ES LÍG<br>NO         | EL PACIFIC                              |   |
| CORRECTIVE ACTION-REVIEW SHOKED THE ACTUATOR ASSY PEEDBACK TRANSDUCER MALL AND PRASING TESTING UNS STRADVERTENTLY OF THE SOLD OF THIS OCIDENCE MALL AND PRASING TESTS HAVE BEE INCORPOGATED IN ALL ACTUATOR ASSENBLY. TO PREVENT RECORRENCE OF THIS OCIDEN TRANSDUCER MALL AND PRASING TESTS HAVE BEE SUBSTANCES IN ALLA AND PRASING TESTS HAVE BEED ON TOPPAT BASED GOVC TESTS COMER TO THE COME OF TOLERANCE. DURING PRESUDENT RESPONSE TESTS STATIC FLOW (\$.02 VS. SPECIFICATION OF 1.10 GPM NIN MUNICAN OVERSHOOT THE CLORE SECONDS VS. SPECIFICATION OF .015 MECONDS) WERE OUT OF TOLERANCE. SIMILAR FAILURES ON ATE \$30024. REFER TO FAR DOG. TEST SPECIFICATION LINITS. ALSO, ACTION INITIATED TO BROP COMME AS A SOLUTION OF TOLERANCE. SIMILAR FAILURES ON THE STATUS ASSENCED TO THE COURT OF TOLERANCE. SIMILAR PAILURES OF THE ACTUATOR ASSENCED THE ACTUATOR ASSENCED THE ACTUATOR ASSENCED THE ACTUATOR ASSENCED TO THE ACTUATOR ASSENCED THE ACTUATOR ASSENCED THE ACTUATOR ASSENCED TO THE ACTUATOR ASSENCED TO THE ACTUATOR ASSENCED TO THE ACTUATOR ASSENCED TO THE ACTUATOR ASSENCED TO THE ACTUATOR ASSENCED TO THE ACTUATOR ASSENCED TO THE ACTUATOR ASSENCED TO THE ACTUATOR ASSENCED TO THE ACTUATOR ASSENCED TO THE ACTUATOR ASSENCED TO THE ACTUATOR ASSENCED TO THE ACTUATOR ASSENCED TO THE ACTUATOR ASSENCED TO THE ACTUATOR ASSENCED TO THE ACTUATOR ASSENCED TO THE ACTUATOR ASSENCED TO THE ACTUATOR ASSENCED TO THE ACTUATOR ASSENCED TO THE ACTUATOR ASSENCED TO THE ACTUATOR ASSENCED TO THE ACTUATOR ASSENCED TO THE ACTUATOR ASSENCED TO THE ACTUATOR ASSENCED TO THE ACTUATOR ASSENCED TO THE ACTUATOR ASSENCED TO THE ACTUATOR ASSENCED TO THE ACTUATOR ASSENCED TO THE ACTUATOR ASSENCED TO THE ACTUATOR ASSENCED TO THE ACTUATOR ASSENCED TO THE ACTUATOR ASSENCED TO THE ACTUATOR ASSENCED TO THE ACTUATOR ASSENCED TO THE ACTUATOR ASSENCED TO THE ACTUATOR ASSENCED TO THE ACTUATOR ASSENCED TO THE ACTUATOR ASSENCED TO THE ACTUATOR ASSENCED TO THE ACTUATOR ASSENCED TO THE ACTUATOR ASSENCED TO THE ACTUATOR ASSENCED TO THE ACTUATOR ASSENCED TO THE ACTUATOR ASSENCED TO THE |   | FAILURE MODE-OUT OF SPEC<br>DISPLACEMENT MERE OUT OF<br>ISCREPANCY CAUSED THE EXC<br>URES CAUSED PROBLEM. | IFICATION-REPORTEDLY, DURING MAPCHE<br>SPECIFIED LIMITS, REPORTED FAILURE<br>ESSIVE ENGINE DISPLACEMENT VALUES R   | LOOK-SEE RUN, WENN<br>HO' COMFRHED, HOW<br>EPONTED, INCORNECT | IER E YAN<br>EVEN PEED<br>PEEDBACK | OPTICAL R<br>LACK TRANS<br>TRANSDUCEN | LEADINGS<br>LOUCER AL | FOR ENGINE<br>DJUSTMENT D<br>ENT PROCED |   |
| HYDRAULIC-A/B SUSTAINEQYVERNIER WERNIER FLOW LINITER VALVE E7-04208-1 SUSTAINEQYVERNIER WERNIER FLOW LINITER VALVE E7-04208-1 FAILURE HODE-OUT OF TOLERANCE. DURING FREQUENCY RESPONSE TEST. STATIC FLOM (1.02 VS. SPECIFICATION OF 1.10 GPH HIN AND OVERSHOOT THE CLOAZ SECONDS VS. SPECIFICATION OF .015 SECONDS) NEWE OUT OF TOLERANCE. SIMILAR FAILURES ON ATE 630924. REFER TO FAR DOS. TEST SPECIFICATION LINITS. ALBO, ACTION INTITITED TO BROP CONAIR AS A BOX CORRECTIVE ACTION-ECP 7698 SUBHITTED TO RELAX SPECIFICATION LINITS. ALBO, ACTION INTITITED TO BROP CONAIR AS A BOX CE OF 27-04206-1. REFER TO FAR 379. HTDRAULIC-A/B SUSTAINER/VERNIER BERNOVALVE-VERNIER E3338-605 SUBDIT HIS FAILURE SHOULD NOT BE CONSIDER FAILURE HODE-OUT OF TOLERANCE-SERVOVALVE ON ACTUATOR HAS OUT OF MULL TOLERANCE. THIS FAILURE SHOULD NOT BE CONSIDER FOR AR FAILURE OF THE ACTUATOR ASSERBLY WILL ADJUSTMENT CALLER DAY DIFFER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |   | CORRECTIVE ACTION-REVIEN<br>TITED ON THIS ACTUATOR AS<br>INCORPORATED IN ALL ACTI                         | I SHOKED THE ACTUATOR ASSY FEEDBACK<br>ISEMBLY. TO PREVENT RECURRENCE OF TH<br>MIOR ASSEMBLY PERFORMANCE CHECK SHE | TRANSDUCER MALL AND<br>118 CH1881CH: TRANSD<br>ETS.           | PUABING NUCER NALL                 | TESTING UN<br>AND PHASI               | AS THADW              | ERTEMILY ON<br>B MAVE DEEN              |   |
| FAILURE HODE-OUT OF TOLERANCE, DURING FREQUENCY RESPONSE TEST, STATIC FLOW (1.08 VS. SPECIFICATION OF 1.10 GPM MIN AND OVERSHOOT TIME (.042 SECONDS VS. SPECIFICATION OF .015 SECONDS) MEME OUT OF TOLERANCE, SIMILAR FAILURES ON ATE 450924. REFER TO FOR DOG. TEST SPECIFIE S/W EDG-1537.  CORRECTIVE ACTION-ECP 7698 SUBMITTED TO RELAK SPECIFICATION LIMITS. ALBO, ACTION INITIATED TO DROP COMAIR AS A BOX CE 27-04206-1. REFER TO FOR 379.  HTDRAULIC-A/S SUBSTITUTE OF TOLERANCE-SERVOYALVE-VERNIER RESPONSABLY MULL TOLERANCE. THIS FAILURE SHOULD NOT BE COMBINED OF ASSEMBLY BULL ADJUSTMENT CALLET BY A DIPERTY.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |   | Ï                                                                                                         | GOAZOIGA<br>VERNIER FLOM LIMITER VALVE                                                                             | UTP-PRT<br>ET-04206-1                                         | 036049                             | <b>50</b> /C                          | 7£8 COM               | A2A<br>3-7                              | : |
| CORRECTIVE ACTION-ECP 7658 SUBMITTED TO RELAK SPECIFICATION LIMITS. ALSO, ACTION INITIATED TO DROP COMMIR AS A SOL TE OF 27-04206-1. REPER TO FAR 379.  HTDRAULIC-A/S SUSTAINER/YCANIER BERVOYALVE-VERNIER FAILURE MODE-OUT OF TOLERANCE-SERVOYALVE ON ACTUATOR MAS OUT OF MULL TOLERANCE. THIS FAILURE SHOULD NOT BE CONSIDER.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |   | FAILURE MODE-OUT OF TOLE WHIN AND OVERSHOOT TIBE (. ATE 650824. REFER TO FRR                              |                                                                                                                    | 187. STATIC FLOW (S.)<br>115 SECONDS) MEME CA                 | 06 VS. SM<br>11 OF TOLE            | ECIPICATIO<br>RANCE. BIN              | SH OF 1.              | 11.CAES ON D                            |   |
| SUSTAINER/VERNIER BERVOYALVE-VERNIER RT-05512-005 030017 PACTORY YES LIGHEL PACIFY SUSTAINER/VERNIER BERVOYALVE-VERNIER RT-05512-005 030017 NO PACTORY YES LIGHEL PACIFY FAILURE HODE-OUT OF TOLERANCE-BERVOYALVE ON ACTUATOR HAS OUT OF HULL TOLERANCE. THIS FAILURE SHOULD NOT BE CONSIDER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 1 | CORRECTIVE ACTION-ECP 74                                                                                  | 198 SUBMITTED TO RELAK SPECIFICATION<br>10 Frm 378.                                                                | 1 LIMITS. ALBO, ACTI                                          | ON INITIA                          | 7.0 of 03.7                           | De CONA               | A A A BOW                               |   |
| FAILURE MODE-OUT OF TOLERANCE-BERVOYALVE ON ACTUATOR WAS OUT OF MULL TOLERANCE. THIS FAILURE SMOULD NOT BE CONSIDER OF ANY ACTUATOR ASSEMBLY MULL ADJUSTMENT CAURED BY A DIPPER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |   | 7                                                                                                         | A-99-04-446E-F<br>Beavovalve-Vernier                                                                               | FAR<br>27-65312-805                                           | 2330<br>240817                     | FACTORY                               | 7E8 L10               | MEL PACIFIC                             |   |
| THE RESIDENCE OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY   |   | FAILURE MODE-OUT OF TOLE                                                                                  | RANCE-SERVOYALVE ON ACTUATOR WAS OU<br>MIOR ASSEMBLY BUT RAIMER AS INCORRE                                         | JT OF MULL TOLERANCE                                          | I. THIB FA<br>I'V HULL AD          | LURE BHOL                             | CAUSED S              | DE CONSIDER                             |   |

CONVAIR DIVIJION

9981 WAT 81

: : •

1

## CONAVIR DIAL 1100

DIFFICULTIES REVIEW-HTDRACLIC STRIEM-AIRBORNE

| 3131EN<br>316-3731EN                                                                                                         | TEST/REPORT NUMBER<br>FAILED COMPONENT NAME                                                                                                                                                                                                                                           | DIF DATA BOUNCE<br>PART HUMBER                | VEHICLE<br>DATE DIF T | BITE PRI                   | VEHICLE BITE PRI 'ENDOR NAME DATE DIF TIME BIF OTH VHOOR PART NO | <u></u> |
|------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|-----------------------|----------------------------|------------------------------------------------------------------|---------|
| CORRECTIVE ACTION-IN APRIL<br>TING AND SERVOVALVE MALL AI<br>OC-ITPE OF SERVOAMPLIFIER.                                      | CORRECTIVE ACTION-IN APRIL 1964 GD/C BEGAN MODIFICATION OF ACTUATOR ASSEMBLY TEST EQUIPMENT USED FOR ACCEPTANCE TES<br>TING AND SERVOVALVE MALL ADJUSTMENT, SERVOVALVE MALL MILL BL ADJUSTED WITH CONTROL SIGNALS FROM AIC PRIMER IMAN AN I<br>OC-TIPE OF SERVOAMPLIFIER.             | F ACTUATOR ASSEMBLY .                         | TEST EQUIPMENTS       | IT USED FO                 | I ACCEPTANCE TES                                                 |         |
| HYDPAULIC-A/B<br>BUSTAINER/VERNIER                                                                                           | 09F1877.1<br>HTDRALLIC FILTER                                                                                                                                                                                                                                                         | UTP-BLT<br>R7-06564-603                       | 9180t9                | CONVAIR YES                | TES PUROLATOR<br>NO 64986-1                                      | • 1000  |
| FALLURE HODE-OUT OF SPE<br>NT TEST SHOWED THAT THE<br>F-4033 ST 9/N DIE-0197/                                                | FAILURE MODE-OUT OF SPECIFICATION, DUNING FINAL PROOF CYCLE AFTER THE 4000 PBIG DELTA PRESSURE TEST, THE BIBBLE POI<br>NT TEST SHOWED THAT THE PORE BIZE OF THE FILTER ELEMENT TO BE 26.2 MICROMB. MED. BIZE IS 25 MICRC 45 MAX. REF. FPR MR<br>F-4033 ST S/M DIE-0197.               | LE AFTER THE 4000 PB)<br>BE EG.E MICRONS. ME. | 16 DELTA PREI         | 18URE 7EST<br>1 MICAC 48 ( | , THE BIBBLE POS<br>MX. REF. FPR MR                              |         |
| CORRECTIVE ACTION-HTDS<br>ELEMENT PROOF PRENSJARE                                                                            | CORRECTIVE ACTION-HYDRAULICS DESIGN IS TO AMBEND THE SPECIFICATION 27-DOSSE TO ALLOW INCREASE IN MICRON SIZE AFTER<br>Element proof prensure test up to 40 microms. REF. Fra Frass4-2-020.                                                                                            | IFICATION 27-06512 TO<br>54-2-026.            | ALLOW INCH            | CAME IN HE                 | ROM BIZE AFIER                                                   |         |
| HYDRAUL IC-A/B<br>BUSTAINER/VERNIER                                                                                          | 98-95-04-4448-F<br>ACTUATOR-8USTAINER                                                                                                                                                                                                                                                 | FAR<br>E7-0656 -3                             | 630916 F              | PACTORY YES                | YES LIGHEI-PACIFIC 884871<br>NO 2725-4                           | į       |
| FAILURE MODE-OUT OF SPECIFICATION-DURI<br>00 CPH 13 THE MAXIMUM PERMITTED, IT 488<br>MOLY MAS MOT SEMT FOR FAILURE AMALYBIB. | FAILUKE MODE-OUT OF SPECIFICATION-DURING RECEIVING INSPECTION THE FLOW RATE NAS REPORTEDLY 1.06 SPM UNEREAL ONLY 1.<br>00 CPM IS THE MAXIMUM PERMITTED. IT AS NOT POSSIBLE TO DUPLICATE THE REPORTED PAILURE AS THE COMPLETE ACTUVIOR ASSE<br>NOLY MAS NOT SEMT FOR FAILURE AMALTSIS. | TION THE PLON RATE W<br>PLICATE THE REPORTED  | PAILURE AS            | 1.04 SPH                   | MEREAS COLV S.                                                   |         |
| CORRECTIVE ACTION-THE RECOMEND RHANCE OF EOF 303-9, 303-7+ 303-ACCOMPLISHED FOR ALL 1835HBLIES.                              | CORECTIVE ACTION-THE RECOMENDED CORRECTIVE ACTION OF THE ENTIRE ASSEMBLY UNEMENTER THERE IS A PAILURE DURING PERFO<br>Rhame of EOF 303-3, 303-7, 303-8 OR 303-10; WAS EFFECTED NOVEHBER 13; 1943, RECEIVING PERSONNEL STATED IT NOALD BE<br>ACCOMPLISHED FOR ALL 183EMBLIES.          | E DITRE ASSEMBLY WH<br>NOVENBER 13, 1963, R   | HEVER THERE           | 18 A FAIL                  | AE DUNIM PERFO                                                   |         |
| HTDRAULIC-178<br>BUSTAINER/VEN:CER                                                                                           | CT-98-02-016P<br>VERNIER ACTUATOR PAIRING                                                                                                                                                                                                                                             | FAR<br>27-05J22                               | 1260<br>63081.        | 344 YGS                    |                                                                  | :       |
| FALLURE MODE-STRUCTURA                                                                                                       | FAILUME MOE-STRUCTURAL. THE FORUMAD EDGE OF THE FAIRING WAS CRACKED TWO INCHES AND 145 A CHIP MISSING. FAILUME IS                                                                                                                                                                     | WAS CRACKED TWO INCH                          | 4 440 1 40 A          | CHIP MISS                  | HES AND 14D A CHIP HISSING. PAILURE IS                           |         |

ATTRIBUTED TO RESIN DEPLETION AT INITIAL PARTICATION, UMER CURING AND AGEING. THE C'AC'S HAD BEEN PATCHED-WITHOUT AUT MOSTALISM. RESIN CONTENT WAS APPROXIMATELY HALF THAT REQUIRED BY DRAWING, BY PERCENT. THIS REDUCED FLEXUME STAENGTH TO 6143 PSI. REQUIREMENT IS FOR 10,000 PSI. BEYENLY CONTOUNED AREAS AFFECT MESIN CONTENT.

CONACCIIVE ACTION-IT WAS RECOMMENDED TO REPLACE ALL PAININGS MAVING UNAVINGAIZED PATCHING. DESIGN PERBONNEL ESTABLI Daed a manufactoring descritcation for repair of abbestob resin structure.

GENERAL BYNAMICS CONVAIR BIVISICH

alog Koho

11 JUL 1166

FAILURE MODE-FAIL DURING OPERATION-WERHIER HYD LINE LOCATED DOMNSTREAM OF DISTRIBUTION MANIFOLD IN WERHIER EMSIME P AIRING FAILED DUE TO INDUCED AERODYMANIC MEATING AT 110 BEC.

WEMICLE EFFECT-PARKATURE PROFULSION SHUTDOM- BUSTAINER AND WERNIER ENGINES SHUTBOMS PREMATURELY.

STRIEM EFFECT-DEPLETION OF LIAUSD BUPPLY.

|         | COAVAIR DIVIBION |
|---------|------------------|
| CENERAL | COMMIR           |
|         |                  |

| 9961 NOT 81                                                              | MANOGRETA-RELEASO DE TANGORIA DE LA PROPERTA DE LA PROPERTA DE LA PROPERTA DE LA PROPERTA DE LA PROPERTA DE LA PROPERTA DE LA PROPERTA DE LA PROPERTA DE LA PROPERTA DE LA PROPERTA DE LA PROPERTA DE LA PROPERTA DE LA PROPERTA DE LA PROPERTA DE LA PROPERTA DE LA PROPERTA DE LA PROPERTA DE LA PROPERTA DE LA PROPERTA DE LA PROPERTA DE LA PROPERTA DE LA PROPERTA DE LA PROPERTA DE LA PROPERTA DE LA PROPERTA DE LA PROPERTA DE LA PROPERTA DE LA PROPERTA DE LA PROPERTA DE LA PROPERTA DE LA PROPERTA DE LA PROPERTA DEL PROPERTA DE LA PROPERTA DE LA PROPERTA DE LA PROPERTA DE LA PROPERTA DE LA PROPERTA DE LA PROPERTA DE LA PROPERTA DE LA PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA DEL PROPERTA | INTERCHION                                |                            |                       |                                         |                                         |
|--------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|----------------------------|-----------------------|-----------------------------------------|-----------------------------------------|
| 87.81EM<br>808-57.87EM                                                   | TEST/REPORT NUMBER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | DIF DATA BOUNCE<br>PART NUMBER            | VENICLE BITE DATE DATE DIP | 817E                  | PRI VENDOR NAME<br>OTH VENDOR PALT NO   |                                         |
| COARECTIVE ACTION-LI                                                     | COMPECTIVE ACTION-LATER BERIES ENGINES IBLOCK I) CHANGED LINE PROM ALUMINUM TO STEEL.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | THE PROM ALUMINUM                         | 10 STEEL.                  |                       |                                         | • • • • • • • • • • • • • • • • • • • • |
| HTDRAILIC-A/B<br>BUSTAINER/VERNIER                                       | SP-88-04-4430-F<br>VERNIER ACTUATOR ASSEMBLY, WIPER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | FAR<br>27-05312-009                       | İ                          | FACTORY               | YES LIGHEL PACIFIC<br>NO LIGHEL PACIFIC | •                                       |
| FAILURE MODE-LEAK-AN<br>BUME, FAILURE IS ATT                             | R-AFTER INITIAL VERNIER INSTALLATION THE ACTUATOR LEAKED MYDRAULIC FLUID UNDER RESIDUAL SYSTEM PRES<br>Attributed to shredding of the Felt Wiper Blocking Proper Sealing of the O-rimss.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | CTUATOR LEAKED HTM<br>BLOCKING PROPER BEL | LING OF THE                | UNDER REI<br>O-RINGS. | HDUAL BYSTEM PRES                       |                                         |
| HTDRALL (C-A/B<br>SUSTAINER/YERNIER                                      | A-90-10-209-F<br>SUSTAINER HTDRAULIC PUMP, O-RING                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | FAR<br>E7-06590-3                         | 15.0057                    | =                     | YES VICKERS<br>NO AA-60410-L-E          | *************************************** |
| FAILURE MODE-LEAK E                                                      | R EXTERNAL-HYDRAULIC PLUID LEAR AT REAR COMERPLATE.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | WEAPLATE.                                 |                            |                       |                                         |                                         |
| CORRECTIVE ACTION-60/C ABVISED PERIOR OF ARTICLES PRIOR TO EXPIRATION OF | COMBECTIVE ACTION-GO/C ADVISED PERSONNEL ON PROPER TORNING OF REAR CONER PLATE NUTS-ADVISED WIR AND FACTORY ON UNE<br>OF ARTICLES PRIOR TO EXPIRATION OF O RING CIRE DATE.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | IS OF REAR COVER PL                       | 11E MUTB-ADV               | DED WIR /             | IND PACTORY ON USE                      |                                         |
| HTDRAULIC-A/B<br>SUSTAINER/VERNIER                                       | 66F3266.1<br>ACCUMAAATOR                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | UTP-PET<br>ET-06567-8                     | 220049                     | CONVAIR               | VES BENDIK<br>ND 3037873                | 0404                                    |
| FAILURE MODE-OUT OF<br>X.). 1531 SPECIMEN EC                             | ' OF TOLERANCE, DURING PET PISTON BREAKANNY TEST, PRESSURE REGUIRED MAS 31 PSIG (SPEC, IS 30 PSIG MA<br>In 203-0360.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | ' TEST, PRESSURE REL                      | NIRED MAS B                | 3) 3164 1             | EC. 18 30 P816 NA                       |                                         |
| COGRECTIVE ACTION- M                                                     | COMPECTIVE ACTION-SPECIFICATION TO BE CHANGED TO ALLOM INCREASED SPEAKANAY PRESSURE.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | REASED BREAKAWAY PA                       | ESSUME.                    |                       |                                         |                                         |
| HYDRAULIC-A/B<br>BUBTAINER/VERMIER                                       | SP-69-10-204-F<br>STACING DIBCOMECT ABBEHBLY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | FAR<br>E7-06555-8                         | 0-00-1                     | FACTORY               | NO PEACOCH                              | 2                                       |
| FAILURE MOE-ERRATIO                                                      | ATTC OPERATION-COUPLING QUAPECTED OF PAILING TO PERMIT BACKFLOM DURING FILL AND BLEED OPERATION.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | ING TO PERHIT BACKP                       | ON DURING F                | 111 AND PE            | LED OPERATION.                          |                                         |
| HYDRAULI,-A/B<br>BUBTAINER/VERNIER                                       | 69A19D6.1<br>ACCHULATOR-P18TON                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | UTF-PRT<br>RT-06558-8                     | 619061                     | CONVAIR               | TES PEACOCK<br>NO 51303-3               | <del></del>                             |
| FAILURE HODE-OUT OF<br>AND MAS CAUSED ST A                               | OF TOLERANCT, TEST THE 648 PRECHARGE LEARAGE ACROSS THE PISTON WAS SO MLYHA. RES. 15 R MLYHA. HAK.<br>T a porque piston, ref. 8/m 118-9308.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | IASE ACROSS THE PIS                       | 108 6M MOT                 | L/HA. AE.             | . 15 E NL/MR. MAK.                      |                                         |
|                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                           |                            |                       |                                         | _                                       |

SENERAL BYNAMICS CONVAIR BIVIDION

: 3

11 101 100

|   | 9901 107 11                                                                      | DIFFICULTIES REVIEW-HYDRAULIC STSTEM-AIRBORNE                                                                                                                                                                                                                                                                                 | AULIC STRIEN-AIRBORA                                                | •                      |            |                                       |                               |          |
|---|----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|------------------------|------------|---------------------------------------|-------------------------------|----------|
|   | BYBYE<br>BUB-BUB                                                                 | TESTARPORT NUMBER<br>FAILED COMPONENT NAME                                                                                                                                                                                                                                                                                    | DIF DATA SOURCE<br>PART NUMBER                                      | VEHICLE<br>DATE DIF    | 114E DIF   | N N N N N N N N N N N N N N N N N N N | VENDOR NAME<br>VENDOR PART NO |          |
|   | COARECTIVE ACTION-WOME. TEST TERHINATED.                                         | TEST TERMINATED.                                                                                                                                                                                                                                                                                                              |                                                                     |                        |            |                                       |                               | :        |
|   | HYDRAULIC-A/B<br>Bustainer/Vernier                                               | 8P-89-10-204F<br>ACCUMALATOR                                                                                                                                                                                                                                                                                                  | FAF<br>27-00353-3                                                   | 010010                 | PACTORY    | 200                                   | YES PEACOCK<br>NO 31303-3     | ?        |
|   | FAILURE MODE-LEAK INTERN<br>CORRECTIVE ACTION - PEAC<br>INSPECTION OF PISTON DOM | FAILUME MODE-LEAR INTERNAL-LEAKED GAS PROM PMEUMATIC TO THE MYDRAULIC SIDE OF THE INTERMEDIATE PISTOM.<br>Corrective action - Peacock Pistom Drawing Revised to Reguire Dye-Penetrant imspection of Pistom Mead, Radiographic<br>Inspection of Pistom dome area, Glass-Peering of Internal and External Pistom Bone surfaces. | HYDRAULIC SIDE OF 1<br>NE DYE-PCHETRANT INS<br>ND EXTERNAL PISTON D | ME INTERN<br>WECTION O | DIATE PIE  | £66,                                  | RADIOGRAPHIC                  |          |
|   | htdrall IC-A/B<br>Bustainer/Yernier                                              | A-89-10-203-F<br>HVDRAULIC RELIEF VALVE                                                                                                                                                                                                                                                                                       | FAR<br>27-06368-1                                                   | 1660                   | FACTORY    | VES BENBOM<br>NO 9212                 | BENBOW NEG                    | :        |
|   | FAILURE MODE-LEAK INTERN<br>AT IMLET PRESSURE OF 355                             | FAILURE MOE-LEAK INTERNAL DUE TO MISADJUSTNENT OF VALVE POPPET RESULTING IN MIGHER THAN ALLOMBLE INTERNAL LEARAGE<br>AT INLET PRESSURE OF 3150 PSIG.                                                                                                                                                                          | PPET RESULTING IN MI                                                | GHER THAM              | ALLOMBLE   | # H                                   | THAL LEAKAGE                  |          |
|   | CURRECTIVE ACTION-60/C CONTACTION-ET BEFORE ACCEPTANCE OF UNITS.                 | CURRECTIVE ACTION-GO/C CONTACTED QUALITY CONTROL PERBONNEL TO REINSTRUCT THEN TO ASSUNE TOLERANCE REQUIRENENTS ARE<br>ET BEFORE ACCEPTANCE OF UNITS.                                                                                                                                                                          | TO REINSTRUCT THEN 1                                                | TO ABBUME              | POLERANCE  | AEOU                                  | REMENTS ARE                   |          |
|   | HTDRAULIC-A/6<br>Austainer/Vermier                                               | 69F3266.1<br>ACCUMAATOR                                                                                                                                                                                                                                                                                                       | UTP-PET<br>E7-06567-3                                               | 40000                  | CONVAIR    | VES BENDIX<br>NO 305-78               | BEN01X<br>305-7978            | •• 708•  |
|   | FAILURE MODE-OUT-OF-TOLE                                                         | FAILURE MODE-OUT-OF-TOLERANCE DURING PET LEAK TEST. LEAKAGE MAS 45 PSIS (SPEC. MAK. 18 10 PSIS.). TEST SPECIMEN 203<br>0360.                                                                                                                                                                                                  | Ms 45 P816 (SPEC.                                                   | MAK. 18 20             |            | 1631                                  | 8PEC 1MEN 203                 |          |
|   | CORRECTIVE ACTION-SPECIF                                                         | CORRECTIVE ACTION-SPECIFICATION TO BE CHANGED TO ALLON NORE LEAKAGE.                                                                                                                                                                                                                                                          | LEAKAGE.                                                            |                        |            |                                       |                               |          |
| 1 | MTDRAULIC-A/B<br>BUBIAINER/VERNIER                                               | MZ-99-04-4366-F<br>ACTUATOR ABSEMBLY, SEAL                                                                                                                                                                                                                                                                                    | FAR<br>87-85312-808                                                 | £330<br>€30607         | FACTORY    | 10 E                                  | LIONEL-PACIFIC                | <b>.</b> |
|   | FAILURE MODE-CONTANINATION. EXTERNAL<br>AMED DUE TO LUBRICATOR FELT SMREDDING    | FAILURE MOE-CONTAMINATION. EXTERNAL LEAR, CAUSED WERNIER ACTUATOR LARED ON BOTH SIDES OF SMAFT. FAILURE UNS CONFI<br>Amed due to lubricator felt spredding promisiting Dymanic o-Ring Sealing.                                                                                                                                | CTUATOR LEAKED ON BY<br>RING DEALING.                               | ) NA 810ES             | W BEART.   | PAIL.                                 | AE WAS COUFT                  |          |
| • | CORRECTIVE ACTION-60/C B                                                         | CORRECTIVE ACTION-60/C STUDIED THE POSSIBILITY OF REPLACING THE PELT MATERIAL WITH A TEPLOM SCRAPER RING BUT COMBID<br>REG THE COST OF REDESIGN AND TEST TOO HIGH AT THIS TIME, 80/C INSTRIRTED CLOSER LIAISON WITH VENDOR QUALITY CONTROL.                                                                                   | THE PELT MATERIAL 1<br>/C IMITIATED CLOSER                          | LIAIBON W              | LON BERAPI | 3                                     | ME EUT COMBID                 |          |

9991 ROF SI

4

1

DIFFICULTIES REVIEW-HYDRAULIC STRIEM-AIRBORNE

| 3121E 3                                                          | TEST/REPORT NUMBER<br>FAILED COMPONENT NAME                                                                                                                                                                                                              | DIF DATA BOUNCE<br>PART NUMBER                 | VEHICLE BITE DATE DATE DATE DATE DATE DATE DATE DA | BITE PRI VENDOR NAME<br>HE DIF OTH VENDOR PART NO                                                                             |                                         |
|------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|----------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|
|                                                                  |                                                                                                                                                                                                                                                          |                                                |                                                    |                                                                                                                               | •                                       |
| HYDRAULIC-A:8<br>SUSTAINER/VERNIER                               | SPAISOS.1<br>ACCUMULATOR, O-RINS                                                                                                                                                                                                                         | C19-981<br>R7-09880-0                          | 630806 COM                                         | COMVAIR YES PEACOGR<br>NO SIBOS-3                                                                                             | •                                       |
| FAILURE MODE-LTAR INTE<br>REG. 13 E ML/HR MAN. A<br>S.           | R INTERNAL-DURING THE STATIC TEST THE GAS PRECHARGE LEARAGE ACROSS THE PISTON O-RING NAS 240 ML/HR.<br>Hax. and was caused by an o-ring with marerous surface irregularities. Ref. Pres4-2-001 8/H 112-030                                               | PRECHARGE LEARASE AC<br>EROUS SURFACE ERREGUL  | ROSS THE PISTO<br>ARITIES. REF.                    | 648 PRECHARGE LEAKAGE ACROSS THE PISTON O-RING NAS 240 ML/HR.<br>Magrous surface irregularities, aef. Fress-2-001 S/N 112-U30 |                                         |
| CORRECTIVE ACTION-THE                                            | CORRECTIVE ACTION-THE O-RING WAS REPLACED AND THE UNIT RETURNED TO TEST.                                                                                                                                                                                 | TURNED TO TEST.                                |                                                    |                                                                                                                               |                                         |
| HYDRAULIC-A/B<br>SUSTAINER/YERNIER                               | A-89-04-4371-F<br>BUSTAINER ACTUATOR ABBENBLY                                                                                                                                                                                                            | FAR<br>27-05514-028                            | 108F FACTORY<br>630601                             | ORY NO LIGHEL PACIFIC                                                                                                         | *************************************** |
| FAILURE MODE-OUT OF TO<br>DUE TO CHARACTERISTICS<br>VOAMPLIFIER. | FAILURE HODE-OUT OF TOLERANCE. ACTUATOR ASSEMBLY HAD OUT OF TOLERANCE PITCH MULL DURING CHECKOUT. FAILURE CONFIRMED<br>Duc to characteristics of alg bervoanglifer. Failure caused by Factory test esuipment incompatibility with alg ber<br>Camplifier. | OF TOLERANCE PITCH NU<br>AED BY FACTORY TEBY E | LL DURING CHEC                                     | KOUT, FAILURE COWIRNED<br>PATIBILITY WITH AIG BER                                                                             |                                         |
| CORRECTIVE ACTION-60/C                                           | COMRECTIVE ACTION-60/C DESIGNED NEW FACTORY TEST EQUIPMENT CAPABLE OF ADEQUATELY CHECKING BOTH ALG AND LOG SERNDAMP<br>IFIERS.                                                                                                                           | T CAPABLE OF ADEBUATE                          | LY CHECKING BK                                     | TH AIG AND LOC SERVOAM                                                                                                        |                                         |
| HTDRAULIC-A/D<br>SUSTA: NER/VEGMIER                              | A-98-10-233-F<br>G-MJY FLEXIBLE MORE                                                                                                                                                                                                                     | FAR<br>27-08600-37                             | 136F CTR<br>630731                                 | YES RESISTOFLER<br>NO RESESSOR                                                                                                | •                                       |
| FAILURE MODE-STRUCTURAL-FITTING AT O                             | UCTURAL-FITTING AT ONE END OF THE HOSE WAS FOUND FROZEN AND COULD NOT BE TURNED BECAUSE TUBING BLEE.                                                                                                                                                     | 8 FOUND FROZEN AND CO                          | ULD NOT BE TU                                      | NED BECAUSE TUBING BLEE                                                                                                       |                                         |
| COMPECTIVE ACTION-60/C                                           | COMECTIVE ACTION-GOZC ADVISED AIR FORCE THE PLEXIBLE MORE IS NOT BUFFICIENT FOR ITS APPLICATION. A MATERIAL CHANGE<br>In tube bleeve does not warrant design action.                                                                                     | E IS NOT BUFFICIENT F                          | OR 178 APP.1C                                      | ITION. A MATERIAL CHANGE                                                                                                      |                                         |
| MTDRAULIC-A/B<br>Bubtainer/Vermier                               | A-89-04-4387-7<br>ACTUATOR ASSY-SUSTAINGR                                                                                                                                                                                                                | FAR - 67854-687                                | 1650 FAC                                           | FACTORY NO LICHEL PACIFIC 083987                                                                                              | •                                       |

FAILURE MODE-OUT OF TOLERANCE. DURING APCHE CHECAGUT, ACTUATOR HAD OUT OF TOLERANCE MULL. FAILURE NOT CONFIRMED IN ACTUATOR, AFCHE TEST EQUIPMENT DEDIZABINED TO HAVE LOW INPUT VOLTAGE BIGNAL, PROBLEM IN 986.

COARCCIIVE ACTION-APCHE PACTORY TEST EAUIPMENT WAS REPAIRED AND REVALIBATED.

11 1UN 1986

### GENERAL BYNAMICS CONVAIR DIVISION

| A-10-04-4331-F A-10-04-4331-F A-10-04-4331-F A-10-04-4331-F A-10-04-4331-F A-10-04-4331-F A-10-04-4331-F A-10-04-4331-F A-10-04-4331-F A-10-04-4331-F A-10-04-4331-F A-10-04-4331-F A-10-04-4331-F A-10-04-4331-F A-10-04-4331-F A-10-04-4331-F A-10-04-4331-F A-10-04-4331-F A-10-04-4331-F A-10-04-4331-F A-10-04-4331-F A-10-04-4331-F A-10-04-4331-F A-10-04-4331-F A-10-04-4331-F A-10-04-4331-F A-10-04-4331-F A-10-04-4331-F A-10-04-4331-F A-10-04-4331-F A-10-04-4331-F A-10-04-4331-F A-10-04-4331-F A-10-04-4331-F A-10-04-4331-F A-10-04-4331-F A-10-04-4331-F A-10-04-4331-F A-10-04-4331-F A-10-04-4331-F A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-04-A A-10-0                                                                                                                                                              | SYSTEM<br>SUB-SYSTEM                                                                                | TEST/REPORT NUMBER<br>FAILED COMPONENT NAME                                                               | DIF DATA BOURCE<br>PART NUMBER                                  | VEHICLE<br>DATE DIF                    | VEHICLE BITE DATE DATE DATE | 2 5                                    | VENDOR NAME                    |                                        |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|----------------------------------------|-----------------------------|----------------------------------------|--------------------------------|----------------------------------------|
| S. COPTINED. PROBABLY DUE TO CONTRIBUTION ACROSS O-RIMS. CAUSE OF PAILURE NOT ISOLATED BY FAILURE ABALT  S. COPTINED. PROBABLY DUE TO CONTRIBUTION ACROSS O-RIMS. CAUSE OF FAILURE NOT ISOLATED BY FAILURE ABALT  KITCH-EDT. INVESTIGATION OF ACTUATION LEARNEE. B. CONTINUIMS. ECP 344E CAMMES O-RIMS TO TOP YISOLA BALL  KELL WIFERS WILL BE REPLACED BY TEPCON MIPERS.  A-BD-04-4381-F  A-BD-04-4381-F  A-BD-04-4381-F  A-BD-04-4381-F  A-TO-04-4381-F  A-TD-04-4381-F  A-TD-04-4381-F  A-TD-04-4381-F  A-TD-04-4381-F  A-TD-04-4381-F  B-TD-04-4381-F  A-TD-04-4381-F  B-TD-04-4381-F  A-TD-04-4381-F  B-TD-04-4381-F  B-TD-14-4381-F  B-T                                                                                                                                                              | HTDRAULIC-A/B<br>Bustainer/Vernier                                                                  | A-80-04-4381-F<br>ACTUATOR ASST-VERNIER O-RING                                                            | FAR<br>87-05318-005                                             | 426                                    | a k                         | <u></u>                                | JOHEL-PACIFIC                  | :                                      |
| A-80-04-4381 A-80-04-4381-F  NIER A-80-04-4381-F  A-80-04-4381-F  A-80-04-4381-F  A-80-04-4381-F  A-80-04-4381-F  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S  B-708383-S                                                                                                                                                                | FALLURE MODE-EXTERNAL LE<br>. FALLURE MAS CONTRNED.<br>818.                                         | EAR. DURING MISSILE CHECKOUT, ACTUATO<br>PROBABLY DUE TO CONTAMINATION ACROSI                             | DA DEVELOPED LEARAG<br>3 O-RING. CAUSE OF                       | E OF NYDRI                             | ILIC FLUI<br>DT 180LATE     | 2 4                                    | IT PISTON SEAL<br>PAILURE AMLT | ······································ |
| A-90-04-4391-F  ACTUATOR  R-90-04-4391-F  ET-06363-5  S40756  NO E723-1  ET-EAK-EXTERNAL. ACTUATOR FOUND LEAKING MADER STANDEY HYDRALALIC PRESAURE. FAILURE WAS NOT CONTINED AS T SECREC COLLD NOT BE CONSIDERD OUT OF SMCIPICATION. STRIPPED CLAMP BOLTHOLE THREADS WERE FOUND BUT DILLEAKAE ON OPERATIONAL PERFORMANCE.  ACTION-60/C INSTRUCTED SITE PERBONSEL OF THE MINIMAL SEERAGE LEAK POUND DURING TEST AND ALBO DESCRIBED TO THREADS AND THE NEED FOR PROPER INSTALLATION IT PISTON CLAMPS ARE UMED AT THE SITE.  ACTION-60/C INSTRUCTED SITE PERBONSEL OF THE MINIMAL SEERAGE LEAK POUND DURING TEST THE SITE.  ACTION-60/C INSTRUCTED SITE PERBONSEL OF THE MINIMAL SEERAGE LEAK POUND DURING TEST THE SITE.  ACTION-60/C INSTRUCTED SITE PERBONSEL OF THE MINIMAL SEERAGE LEAK POUND DURING THE SITE.  ACTION-60/C INSTRUCTED SITE PERBONSEL OF THE MINIMAL SEERAGE LEAK POUND DURING TEST THE SITE.  ACTION-60/C INSTRUCTED SITE PERBONSEL OF THE MINIMAL SEERAGE LEAK POUND DURING THE SITE OF SITE OF THE SITE OF THE SITE OF THE SITE OF THE SITE OF THE SITE OF THE SITE OF THE SITE OF THE SITE OF THE SITE OF THE SITE OF THE SITE OF THE SITE OF THE SITE OF THE SITE OF THE SITE OF THE SITE OF THE SITE OF THE SITE OF THE SITE OF THE SITE OF THE SITE OF THE SITE OF THE SITE OF THE SITE OF THE SITE OF THE SITE OF THE SITE OF THE SITE OF THE SITE OF THE SITE OF THE SITE OF THE SITE OF THE SITE OF THE SITE OF THE SITE OF THE SITE OF THE SITE OF THE SITE OF THE SITE OF THE SITE OF THE SITE OF THE SITE OF THE SITE OF THE SITE OF THE SITE OF THE SITE OF THE SITE OF THE SITE OF THE SITE OF THE SITE OF THE SITE OF THE SITE OF THE SITE OF THE SITE OF THE SITE OF THE SITE OF THE SITE OF THE SITE OF THE SITE OF THE SITE OF THE SITE OF THE SITE OF THE SITE OF THE SITE OF THE SITE OF THE SITE OF THE SITE OF THE SITE OF THE SITE OF THE SITE OF THE SITE OF THE SITE OF THE SITE OF THE SITE OF THE SITE OF THE SITE OF THE SITE OF THE SITE OF THE SITE OF THE SITE OF THE SITE OF THE SITE OF THE SITE OF THE SITE OF THE SITE OF THE SITE OF THE SITE OF THE SITE OF THE SITE O                                                                                                                                                              | N-60/C                                                                                              | INVESTIGATION OF ACTUATOR LEARAGE IS                                                                      | CONTINUING. ECP 34                                              | 4E CHANGE                              |                             | 5<br>2                                 | VISUAL GUALE                   |                                        |
| SEEAGE COLLD NOT BE CONSIDERED OUT OF SPECIFICATION. STRIPPED CLAMP SOLINGE HAS NOT COFFINED AS T LEAKAGE OR OPERATIONAL PERFORMANCE.  LEAKAGE OR OPERATIONAL PERFORMANCE.  ACTION-60/C INSTRUCTED SITE PERSONNEL OF THE MINIMAL SEEAGE LEAK FOLND DURING TEST AND ALSO DESCRIBED T OF THREADS AND THE NELD FOR PROPER INSTALLATION IF PISTON CLAMPS ARE UNED AT THE SITE.  ACTION-60/C INSTRUCTED SITE PERSONNEL OF THE MINIMAL SEEAGE LEAK FOLND DURING TEST AND ALSO DESCRIBED T OF THREADS AND THE NELD FOR PROPER INSTALLATION IF PISTON CLAMPS ARE UNED AT THE SITE.  ASP-80-10-150-P  ACTION-66/C ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  ASSEMBL.  A                                                                                                                                                              | HYDRAUL I C-A/B<br>Bustainer/Vernier                                                                | A-90-04-4381-F<br>ACTUATOR                                                                                | FAR<br>27-06563-5                                               | 34<br>630726                           | 5                           | ı                                      | 1.EHCO<br>7.85-1               | :                                      |
| OF THREADS AND THE NEED FOR PROPER INSTALLATION IF PISTON CLANGS ANE USED AT THE SITE.  SP-90-10-190-F HOSE ASSEMBLY RACTION-RESULTS OF TESTING LOST. SITES INFORMED TO HAVE FART WATCHED HORE CLOSELY AND TO PROMPTLY DISPOSITIVES.  SALV-89-10-218-F HOSE ASSEMBLY RATIONES.  SALV-89-10-218-F HOSE RYTERMAL-6ASEOUS MITROSEM- HOSE RUPTUMED DURING PLEX TESTING AT 1030 PLEXING CYCLES WITH 3100-PSI HOSE. FAILUME ATTRIBUTED TO THE WIRE SARING PAILING IN SENDING AND TENSION- RESULTED IN SELLONG RUPTUME.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | FAILURE MODE-LEAK-EXTERN ME ANOUNT OF SEEPAGE COUL D NOT EFFECT LEAKAGE OR CORRECTIVE ACTION-60/C 1 | ML. ACTUATOR FOUND LEAKING UNDER STA<br>LD NOT BE CONSIDERED OUT OF SPECIFICA<br>OPERATIONAL PENFORMANCE. | NDSY HYDRAULIC PRE<br>NTION. STRIPPED CLA<br>HAL SEEPAGE LEAR P | SAME: FAI<br>JAP BOLTHO.<br>CURD DURIN | LUNE WAS E THREADH          | 0 10 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 | CONTINUED AS T<br>FOUND BUT DI |                                        |
| SP-90-10-190-F MOSÉ ASSÉMBLY RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-06561-S RT-0                                                                                                                                                              | HE STRIPPAGE OF THREADS A                                                                           | AND THE NEED FOR PROPER INSTALLATION                                                                      | IF PISTON CLAMPS A                                              | AE USED AT                             | THE BITE                    | ند                                     |                                |                                        |
| E-LEAK EXTERNAL-GASEGUS NITROSEN LEAKAGE.  ACTION-RESULTS OF TESTING LOST. SITES INFORMED TO HAVE PART WATCHED HORE CLOSELY AND TO PROMPTLY DISPOSI-  ALV-89-:0-218-F FAR SOCIETY STREET FOR STATE FOR SOCIETY TO STATE FOR SOCIETY TO SERVERS  HIER RAVERHAL-GASEOUS NITROSEN- HOSE RUPTUMED DURING PLEX TESTING AT 1030 PLEXING CYCLES WITH SLOO-PSI- HOSE. FAILUME ATTRIBUTED TO THE WIRE SRAID FAILING IN SCHOOL RESULTED IN SELLONG RUPTUME.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | IVBRAUL IC-A/B<br>Iubtainer/Vernier                                                                 | 8P-90-10-190-P<br>MO6E ASSEMBLY                                                                           | FAR<br>87-06561-8                                               |                                        | ¥ 5                         | 75.0                                   | 1 7FLEX<br>4852-5              | •                                      |
| ACTION-RESULTS OF TESTING LOST. SITES INFORMED TO MANE FART WATCHED MORE CLOSELY AND TO PROMPTLY DISPOSE  SLV-88-:0-215-F  RV-88-:0-215-F  MOSE ASSEMBLY  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561-\$  RY-08561 | FAILURE MODE-LEAK EXTERN                                                                            | MIL-GASEOUS MITROGEN LEAKAGE.                                                                             |                                                                 |                                        |                             |                                        |                                |                                        |
| ALV-88-10-218-F FAR 680723 60/CPRT VES TITEPLEA WOLER AND ALLURE ATTRIBUTED TO THE WINE BRAID FAILURE AND TENSION- RESULTED IN BELLONG RUPTURE.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | CORRECTIVE ACTION-RESULT                                                                            | TS OF TESTING LOST. SITES INFORMED TO                                                                     | HAVE FART WATCHED                                               | HORE CLOS                              | ELY AND 1                   | 0                                      | MPTLY DISPOSE                  |                                        |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | IYDRAULIC-A/B<br>IUBTAINER/YERNIER                                                                  | 847-89-10-218-F                                                                                           | FAR<br>27-06561-5                                               | 630723                                 | 18/CM1                      | 20                                     | 11TEFLE 4                      | i                                      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                     | MAL-GABEOUR MITROGEN- MORE RUPTUNED I<br>NE ATTRIBUTED TO THE WIRE BRAID FAILI                            | DURING PLEX TESTING<br>ING IN BENDING AND                       | 1 AT 1030 F                            | LENIME CI<br>MBOLTED I      | 7CLE8                                  | WITH SIGN-PSI                  |                                        |

COMMECTIVE ACTION-BUNVET 108-68 MAS 188UED TO REJECT ALL UNITS FROM LOTS 6-7-8 AND 8. NEW HOSE DESIGNES.

|   | #961 WOT \$1                                                                                                | SWEGGER-HETERS DISTANCE THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION | CONTRACTOR STREET STREET                                                                      | ¥                                                   |                                                |                           |                                                                      |        |
|---|-------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|-----------------------------------------------------|------------------------------------------------|---------------------------|----------------------------------------------------------------------|--------|
|   | ATSTEN<br>BUB-BYSIEM                                                                                        | TESTARFORT HUMBER FAILED COMPOMENT NAME                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | DIF DATA SOURCE<br>PART NUMBER                                                                | VEHICLE<br>DATE DIF                                 | A116<br>71ME 01F                               | # 0<br># 0                | VENICLE BITE PRI VENOOR MANE<br>DATE DIF TIME DIF OTH VENOOR PART NO |        |
|   | HTDRAULIC-A/B<br>BUBTAINER/VERNIER                                                                          | 69A1933-3<br>FLEK HOSE ABBY.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | UTP-PRT<br>R7-08581-9                                                                         | 630722                                              | CONVAIR                                        | <b>3</b> 0                | YES 111EFLEX<br>NO 8683E-9                                           | 901408 |
|   | FAILURE MODE-LEAK-EXTERN<br>UGH THE FLEK BRAID AND UM<br>TIMG. UMIT MAS AT 3100 PA                          | R-EXTERNAL-DURING THE FLEXIBILITY TEST AFTER 1030 C CLEB THE UNIT LEAKED GNG. THE LEARAGE CAME THRO<br>D and was caused by the rupture of the braid and flex tube at the junction of the braid and end fit<br>' 3100 psig. And 101 Eggree F. Ref. Reliability test failure notice blut 6/m 110-0359.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | TER 1030 C CLES THE (<br>TAID AND FLEX TUBE AT<br>SILITY TEST FAILURE NO                      | MIT LEAKEE<br>THE JUNCTI                            | 6/N 110-                                       | E LEAN<br>E BRA1<br>0350. | AGE CAME THRO<br>D AND END PIT                                       |        |
|   | CORRECTIVE ACTION-NOME-PRO<br>DOE AND SUPPLEMENT A AND B.                                                   | CORECTIVE ACTION-NOME-PROPULSION DESIGN STATED THAT THIS FAILURE WOULD MANE NO EFFECT ON FLISHT, REF. FAR FRES4-E-                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | FAILURE WOULD MAVE !                                                                          | ID EFFECT O                                         | N PLISH                                        | . AC.                     | FRR FR654-E-                                                         |        |
|   | HTDRAULIC-A/B<br>SUSTAINER/VERNIER                                                                          | 69A1953.3<br>FLEX HOSE ASSY.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | UTP-PAT<br>27-06561-5                                                                         | 630722                                              | CONVAIR                                        | 7.03<br>O                 | YES TITE FLEX<br>NO 88932-5                                          | •• 10  |
|   | FAILURE HODE-LEAK-EXTER<br>THE COMMECTION OF THE FLI<br>FLEXURE CYCLES THE LEAK<br>ED TO 3100 PSIG AND AT A | FAILURE MOE-LEAK-EXTERNAL-THE UNIT WAS PRESSURIZED WITH GNE TO GOOD PSIG. IT LEAKED AT THE RATE OF 400 CC/MIN. AT THE CONMECTION OF THE FLEX SECTION TO THE EDG FITTING. THE UNIT WAS SUBJECTED TO THE PLEXIBILITY TEST AND DURING THE FLEXURE CYCLES THE LEAKAGE STEADIL. INCREASE UNTIL THE MOSE RUPHED AT 1070 FLEXURE CYCLES WITH THE UNIT PRESSURIZE TO SIGO PSIG AND AT A TEMPERATURE OF 70 DEGREE F. REF. RELIABILITY FAILURE MOTICE BLUE BAN 110-0359.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | GNE TO GOOD PSIG. 17<br>CONTINUES SAGIECTED 1<br>CONTINUED AT 1070 I<br>RELIABIL!TY FAILURE 1 | LEAKED AT<br>TO THE FLET<br>LEXUME CY<br>TOTICE BLW | THE RATE<br>(18)L.TY<br>(LES WITH<br>1 8/H 110 | OF 40<br>TEST A<br>THE U  | IO CC/MIN. AT<br>IND DURING THE<br>MIT PRESSURIZ                     |        |
|   | CORRECTIVE ACTION-NOWE-TEST TERMINATED. PROF                                                                | CORRECTIVE ACTION-NOME-TEST TERMINATED. PROPULSION DESIGN STATED THAT THIS FAILURE NOME MONE NO EFFECT ON FLISHT.<br>Lef. Frr fresh-2-our and supplement a and B.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | STATED THAT THIS FAL                                                                          | TIME HORT                                           | HAVE NO                                        | The C                     | 11 ON FLISHT.                                                        |        |
|   | HTDRAULIC-A/B<br>BUBTAINGA/VERNIER                                                                          | GOALD33.8<br>FLEM MOME ABBY.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | UIP-FRT<br>87-06361-8                                                                         | 640728                                              | CONVAIR                                        | 20                        | YES TITEFLEK<br>NO 90838-5                                           | 16020  |
|   | FAILURE MODE-LEAK-EXTER<br>3000 P316 AT THE MATIMG (M 110-0359.                                             | IN-EXTERNAL-DURING POST PRT VIBRATION PROOF CYCLE THE UNIT LEARED BNR AT THE RATE OF 8 CC/HINJIE AT NATING OF THE FLEX RECTION AND ONE OF THE ENJ FITTINGS. REF. RELIABILITY TEST FAILURE NOTICE SLYS S                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | JE CYCLE THE UNIT LEAN<br>I ENJ PITTINGS. REF. (                                              | ELIABILITA                                          | THE RATE                                       | 11.00                     | CC/MINUTE AT<br>NOTICE BLYS B                                        |        |
|   | CORRECTIVE ACTION-NOME, TESTING CONTINUED.                                                                  | TESTING CONTINUED.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                               |                                                     |                                                |                           |                                                                      |        |
|   | HTORAULIC-A/B<br>BUSTAINEG/VERNIER                                                                          | A-09-10-100-F<br>PHESSURE GAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | FAR<br>E7-08562-3                                                                             | 72£<br>630710                                       | PACTORY                                        | Şg                        | YES ROCHESTER SASE<br>NO 6803-718-1                                  | :      |
|   | PAILUME MODE-LEAM ENTER!                                                                                    | A EXTERNAL-LEAKING FLUID PROM GAGE ATTACHNENT TO THE ACCUMILATOR LINE PITTING. BUE TO A DEFECTIVE D                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | HENT TO THE ACCUMALA                                                                          | 104 LINE P                                          | 171166. 0                                      | ă<br>5                    | A DEFECTIVE .                                                        |        |
| 1 | CORRECTIVE ACTION-PIELD                                                                                     | CORRECTIVE ACTION-FIELD PERSONNEL NOTIFIED OF POSSIBLE ACCUMULATOR PROBLEMS BY TWI AND BY TELECOM.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | CUMULATOR PROBLEMS B                                                                          | TAR AND                                             | DA TELECO                                      | ž                         |                                                                      |        |

歌の歌をあるのとのとのできるというないというとなっているないが、からからしないないがらいというないないとして

A Street of

DIFFICULTIES REVIEW-HYDRAULIC SYSTEM-AIRBORNE

| ***                                                                   |                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                   | 9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-----------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PRI VENDOR NAME OTH VENDOR PART NO TER ROCHESTER 646E NO 8803-718-1   | EF PORT IN THE GAGE ON. HINIATURIZED WE INCH OUTSIDE DIANE                                                                                                                                                                                                                                                            | U                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| MENICLE 817E<br>DATE DIF 71M: DIF<br>1980 FACTORY                     | THE MELI<br>INSPECTE<br>OF 0.008                                                                                                                                                                                                                                                                                      | ETR                                                                                                                                                                 | FACTORY FYERAL DR                                                                                                                                                                                                                                                                                                                                                 | MED. WIR T SEAL WI LTOR HAD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| WEHICLE<br>DATE DIF<br>1990<br>930700                                 | n THROUGH<br>FOR MELLI<br>RE TUBING                                                                                                                                                                                                                                                                                   | 1367<br>630707<br>TABLE EID.                                                                                                                                        | 109° 430701 430701 430701 430701                                                                                                                                                                                                                                                                                                                                  | ADCOUNTE.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| DIF DATA BOUNCE<br>PART NUMBER<br>FAR<br>E7-0858E-3                   | THE TUBE CONNECTION<br>ONEN LEAK DETECTOR<br>NATERIAL AND PROCU                                                                                                                                                                                                                                                       | FAR<br>ET-83314-8ES<br>C FLUID FROM ADJUB                                                                                                                           | FAR<br>FAR<br>ET-851E-805<br>MAULIC FLUID IN EX<br>ON. FAILURE CAUSED                                                                                                                                                                                                                                                                                             | CALLOUT MAS FOUND CTION PROCEDURES W FAR E7-6538-608 MAULIC OIL PAST PI 66 ON TRANSDUCER EN                                                                                                                                                                                                                                                                                                                                                                                                                            |
| TEST/REPORT NUMBER FAILED COMPONENT NAME 8P-80-10-180-P PRESSURE 646E | EAR INTERMAL-LEARING BETWEEN GAGE MOUSING AND THE TUBE CONNECTION THROWN THE RELIEF PORT IN THE GAGE<br>TON-ROCHESTER GAGE TO USE GENERAL ELECTRIC MALGEN LEAK DETECTOR FOR WELL INSPECTION. MINIATURIZED WE<br>SED WITH HTDROGEN AS WELDING GAS, CHANGE PLUK MATERIAL AND PROCURE TUBING OF 0.008 INCH OUTSIDE DIAME | SEST.                                                                                                                                                               | TON-GO/C INFORNED SITE PERSONNEL OF RESULTS OF ANALYSIS. NO FURTHER CORRECTIVE ACTION WAS TAKEN SINCE  A-99-04-433E-F  ACTUATOR ASSENDLY, SEAL  ET-8531E-805  B30701  ACTUATOR PERSONNEL PROPERSONNEL FALLENED HYDRAULIC FLUID IN EXCESS OF SEVERAL DROPS PER HIMUTE. PAI  DIE TO CHISSION OF O-RING IN PRESSURE PORT UNION. FAILURE CAUSED BY IMPROPER ASSEMBLY. | CORRECTIVE ACTION-60/C REVIEWED ALL PART PLANNING AND O-RIMG CALLOUT NAS FOUND ADEQUATE. ALL RESPONSIBLE PERSONNEL.  VORALIC-A/8  SP-90-04-4336-F  VAILURE MODE-LEAR-EXTERNAL. VERNIER ACTUATOR ASSEMBLY: BEAL  RATIONE MODE-LEAR-EXTERNAL. VERNIER ACTUATOR ASSEMBLY: BEAL  RATIONE MODE-LEAR-EXTERNAL. VERNIER ACTUATOR ASSY LEAKED HYDRAULIC OIL PAST PISTON SAMPT SEAL VITH NO STSTEM PRESSU  RE APPLIED. OUT OF SPECIFICATION LEARAGE NOT CONFINNED. O-RIMG ON TRANSDUCER END OF ACTUATOR HAD A PINE CUT ON PERIP |
| SYSTEM SUG-SYSTEM WYDRAULIC-A/B SUSYAINGR/VERNIER                     | FAILURE MODE-LEAK INTERN MOUSING.  CORRECTIVE ACTION-ROCHES LD TIPS TO BE USED WITH P                                                                                                                                                                                                                                 | HYDRAULIC-A/B A-98-04-4562-F SUSTAINER/YERNIER SUSTAINER ACTUATOR AS FAILURE HODE-LEAK-EXTERNAL, ACTUATOR HAD LEAKA IN EXTENSIVE TESTING, CAUSE OF FAILURE UNKNOWN. | CORRECTIVE ACTION-6D/C I REPORTED FAILURE UMS NOT HTDRAULIC-A/B SUSTAINER/VERNIER FAILURE HODE-LEAK-EXTER LURE CONTIRED DIE TO UNI                                                                                                                                                                                                                                | CORRECTIVE ACTION-6D/C F<br>MERE MOTIFIED OF THIS HUN<br>HYDRAULIC-A/B<br>SUSTAINER/VERNIER<br>FAILURE HODE-LEAR-EXTER<br>RE APPLIED. OUT OF SPECIF<br>HERY AND MAS PROBABLE CAN                                                                                                                                                                                                                                                                                                                                       |

CORRECTIVE ACTION-YENDOR REINSTRUCTED ASSEMBLY AND INSPECTION PERSONNEL IN PROPER METHODS OF INSTALLING O-RIMES, SA CA-UP RIMES AND FELT LUBRICATORS IN MENNIER ACTUATOR ASSEMBLIES. VENDOR ALSO IMPLEMENTED 100-PERCENT INSPECTION OF O

A Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of

**\*** 

|                                                                                                                                         | DIFFICULTIES REVIEW-MYDRAULIC SYSTEM-AIRBORNE                                                                                                                                                                                                                                                                                              | RAULIC SYSTEM-AIRSON                                                | Ä                                                                             |                                 |                         |                               |               |
|-----------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|-------------------------------------------------------------------------------|---------------------------------|-------------------------|-------------------------------|---------------|
| 9787EX<br>848-8787EX                                                                                                                    | TESTARFORT NUMBER<br>FAILED COMPONENT NAME                                                                                                                                                                                                                                                                                                 | DIF DATA SOURCE<br>PART NUMBER                                      | VEHICLE BITE PRI                                                              | 817E<br>71ME 01F                |                         | VENDOR MANE<br>VENDOR PART NO |               |
| NTORAULIC-A/B<br>BUBTAINER/VERNIER                                                                                                      | EN-1880/82-401-00-158                                                                                                                                                                                                                                                                                                                      | 7,1647                                                              | 1360                                                                          | 9766-E                          | 5 8                     |                               | ***           |
| FAILURE MODE-FAILED DUR                                                                                                                 | FAILUNG MODE-FAILED DURING OPERATION. BUSTAINEN VERNIER MYBRAULIC PRESSURE LOST AT 118.7 SECONDS.                                                                                                                                                                                                                                          | DRAULIC PRESSURE LOS                                                | 17 AT 158.7                                                                   | <b>1000)</b>                    | •                       |                               | ·····         |
| WHICLE EFFECT-COREATION STOPPED PREMATURELY.  WHICLE EFFECT-LOSS OF WHICLE STABILITY. ST.  ENGINES SHUT DOWN ABOUT 119 SECONDS. BHOCKS. | BYBICH EFFECT-OPERATION BYOPPED PREMATURELY.  VEHICLE EFFECT-LOSS OF VEHICLE BYABILITY: BYRONG BIVERGENT BLOBM OBCILLATIONS IN PITCH AND ERRATIC ENGINE MOVEMENTS.  FININGS SHUT DOWN ABOUT 119 BECONDS: BHOCKS NOTED ON STROS AT 118.4 BECONDS: VEHICLE BELF-DESTRUCTION ABOUT 120 BE                                                     | MOSH OSCILLATIONS<br>8 AT 118-4 SECONDS.                            | IN PITCH A                                                                    | ND ERRAT<br>LF-DESTR            | IC EMS14<br>UCTION A    | E HOVEMENTS<br>BOUT 120 SE    |               |
| CORRECTIVE ACTION-NOME.                                                                                                                 |                                                                                                                                                                                                                                                                                                                                            |                                                                     |                                                                               |                                 |                         |                               |               |
| HYDRAULIC-A/B<br>BUSTAINER/VERMIER                                                                                                      | 3F-99-10-196-F<br>ACCUMALATOR                                                                                                                                                                                                                                                                                                              | FAR<br>E7-04553-3                                                   | 939059                                                                        | FACTORY                         | YES PEACOC<br>NO 51305- | PEACOCK<br>91305-3            |               |
| FAILURE MODE-LEAR INTERICO                                                                                                              | FAILURE MODE-LEAK INTERNAL-LEAKED 6AS FROM PREUMATIC TO THE MYDRAULIC SIDE OF THE INTERNEDIATE PISTON<br>CORRECTIVE ACTION-PEACOCK PISTON DRAWING REVISED TO REQUIRE DYE-PENETRANT INSPECTION OF PISTON MEAD. RADIOGRAPHIC                                                                                                                 | E HYDRAULIC BIDE OF                                                 | THE INTERN                                                                    | EDIATE P                        | 1870s<br>LAB. RAD       | IOGRAPHIC I                   |               |
| MSPECTION OF FISTON DONE, MYDRAULIC-A/B SUSTAINER/VERNIER                                                                               | 3P-90-04-4370-F FAR FAR 750 W ACTUATOR ASSEMBLY, BEAL 87-85311-809 830426                                                                                                                                                                                                                                                                  | FAR 87-85311-809                                                    | 730<br><b>61</b> 00                                                           | .   e                           | VES CLEHED              | 0.00                          | :             |
| PAILUME MODE-ERVERMAL LEAK.<br>WAS COMFISHED DUE TO FELF WIPERS.<br>OPER ASSENDENT OF FELF WIPERS.                                      | FAILUNE MODE-ERIERMAL LEAK. VERHIER B ACTUATOR NAS POUMD LEAKING EKEBSIVELY BURING PERFORMANCE PROCEDUME. FAILUNE<br>MAS CONTRMED DUE TO FELT MIPER BHEDDING AND PROHIBITING PROPER O-RING BEALING. FAILURE MOST PROBABLY CAUSED SY IMPR<br>OPER ASSEMBLY OF FELT WIPERS.                                                                  | GARIMO ENCESSIMELY S<br>OPER O-RIMO SEALING.                        | PAILUE PER                                                                    | 04 PR 04                        | PROCEDUR                | E. PAILURE<br>SED ST INTE     |               |
| CORRECTIVE ACTION-OWERN<br>ASSEMBLY, 60/C STUDIED TO<br>EDESIGN AND TEST TOO HIGH                                                       | CORRECTIVE ACTION-OVERHAUL CENTER PROVIDED VIBUAL AID FOR OVERHAUL PERBONNEL TO CLARIFY FELT WIPER PARAICATION AND ABSENDET, GOVC STUDIED THE POSSIBILITY OF REPLACING THE FELT WITH A TEFLON SCRAPER RING BUT CONSIDERED THE COST OF 1 EDESIGN AND TEST TOO HIGH AT THIS TIME, 60/C INITIATED CLOSER LIAISON WITH WENDON QUALITY CONTROL. | OVERHAUL PERSONNEL T<br>T WITH A TEFLON SCA<br>ER LIAISON WITH WEND | EL TO CLAKIPY PELT WIPE<br>BCRAPER RIMS BUT CONSID<br>WENDOR BUALITY CONTROL. | PELT WIP<br>UT CONSI<br>CONTROL | ER FABAL<br>DERED THE   | CATION AND<br>E COAT OF R     |               |
| MTGRAULIC-A/B<br>BUBTALAGA/VERNIER                                                                                                      | A-90-10-189C<br>BUSTAINER HYDRAULIC PUMP                                                                                                                                                                                                                                                                                                   | FAA<br>87-06580-8                                                   | ***************************************                                       | VAFO                            | 768 VIC                 | VICARRA<br>AA-60410-L-E       | •             |
| FAILURE MODE-ERRATIC OF                                                                                                                 | FAILURE MOJE-ERRATIC OPERATION-DURING FILL AND BLEED OPERATION THE PURP ENITTED A CLICKITY'S BOUND BUE TO PREASURE AN<br>POWER ROTATIONS                                                                                                                                                                                                   | TION THE PURP ENITTE                                                | B A CLICKI                                                                    | genog                           | 70<br>70                | PAESSUAE AN                   |               |
| COARECTIVE ACTION-HOME-                                                                                                                 | ON-HOME-FILLING AMALTRIS ON THE UNIT HAS CANCELLED.                                                                                                                                                                                                                                                                                        | WELLED.                                                             |                                                                               |                                 |                         |                               | <del></del> † |

● 「本日本の人の大人を行うというとなるのである」と、「日本の大人を行っている」である。 これは 一人のない

**\$** 

\*\*\*

|                                               |                                                                      | •••                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                    |                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                 | *************************************** |                                                                                                                                                                                                                                                                |                                                                     |
|-----------------------------------------------|----------------------------------------------------------------------|--------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|
|                                               | WENTCLE SITE PRI VENDOR NAME<br>DATE DIF TIME DIF OTH VENDOR PART NO | VES LICHEL-PACIFIC 005580            | ME DECK 107, C<br>ER PISTONS INS<br>UNIVE TESTING<br>TONS.                                                                                                                                                                                                                                                                                                                                                                                                    | YES CADILLAC GAGE NO FC-27-398A    | OMSE RATE REGUIANISM. PAILURE                                                                                                                                                                                                                                                                     | S INSPECTION T.<br>S.                                                                                                                                                                                                           | TES CADILLAC GAGE NO FC-E8-397A         | CONTINUED DUE                                                                                                                                                                                                                                                  | TES LIGHEL PACIFIC<br>NO 40/C                                       |
|                                               | 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1                              | 28                                   | TANK<br>SERVICE OF W                                                                                                                                                                                                                                                                                                                                                                                                                                          | <b>2</b> 0                         | 20 M                                                                                                                                                                                                                                                                                              | CYCLE                                                                                                                                                                                                                           | ž 6                                     |                                                                                                                                                                                                                                                                | ž 3                                                                 |
|                                               | 11 ME 11                                                             | <b>5</b>                             | ANL B PAGE LURE WAS LURE WAS                                                                                                                                                                                                                                                                                                                                                                                                                                  | FACTORY                            | ON BICHAL                                                                                                                                                                                                                                                                                         | AND CLEAN                                                                                                                                                                                                                       | FACTORY                                 | L. FALLE<br>EDUNES FO                                                                                                                                                                                                                                          | 90-V                                                                |
| ¥                                             | WENICLE<br>BATE DIF                                                  | 2010<br>2104E0                       | INPUT BIG<br>RE OF FAI<br>I PI BIONE.<br>RIC PLUES<br>ZNBTALLI                                                                                                                                                                                                                                                                                                                                                                                                | 039000                             | ERATION O                                                                                                                                                                                                                                                                                         | CLEANING<br>ORATED FO                                                                                                                                                                                                           | 630619                                  | CA OVERNALL                                                                                                                                                                                                                                                    | 110-0                                                               |
| IN.IC SYSTEM-AIRBOA                           | DIF DATA SOURCE<br>PART NUMBER                                       | FAR<br>87-08:1-605                   | PISTON RESPOND TO<br>PISTON ACTION. CAL<br>ID PAST THE SMUSSEN<br>ID PAST THE SMUSSEN<br>DER SECTION HYDRAU<br>CORRECT METHODS OF                                                                                                                                                                                                                                                                                                                             | FAR<br>87-0, 208-1                 | FAILED TO MEET BY<br>BLOCKING PROPER OF                                                                                                                                                                                                                                                           | INITIATED INFROVED<br>ACTIONS NERE INCORP                                                                                                                                                                                       | FAR<br>27-04208-1                       | DULD NOT MALL AFTE                                                                                                                                                                                                                                             | FAR<br>87-05311-5                                                   |
| DIFFICULTIES REVIEW-HYDRAULIC SYSTEM-AIRBORNE | TEST/REPORT NUMBER<br>FAILED COMPONENT NAME                          | 8P-9D-04-4335-F<br>ACTUATOR ASSEMBLY | FAILURE MODE-OUT OF TOLERANCE, MISSILE CHECROUT ACTUATOR PAILED TO RESPOND TO IMPUT SIGNALS FROM MAYONE DECK 107, C<br>ANDS 204 AND 210. FAILURE COMPIRED DUE TO INCORRECT SANDSER PISTON ACTION, CAUGE OF FAILURE WAS SANDSER PISTONS INS<br>TALLED BACKWARDS ALLOWING UMRESTRICTED PLOW OF HYDRAULIC PLUID PAST THE SANDSER PISTONS.<br>CORRECTIVE ACTION-60/C REVISEE TEST PROCEDURE TO INSUME SANDSER SECTION HYDRAULIC PLUSS ANG REMOVED DUMING TESTING. | A-JA-04-4333-F<br>9ERVO VALVE      | PAILURE MOE-FAIL TO OPERATE AT PRESCRIBED TIME. BERVO-VALVE FAILED TO MEET BPECIFICATION BIGMAL REBPONSE RATE REGU<br>Irements. Failure was compirmed due to extramegus metal chip blocking proper operation of plapper mechanism. Pailure<br>Caused by contamination introduced during overhaul. | CORRECTIVE ACTION-GD/C REVIEWED OWERHAUL OF PROCEDURES AND INITIATED INFROVED CLEANING AND CLEANLINESS INSPECTION T<br>ECHHISUES. ULTRASONIC CLEANING TECHNISUES AND DETAILED INSTRUCTIONS WERE INCORPORATED FOR RENORK CYCLES. | A-JA-04-4365-F<br>BERVO VALVE           | FAILURE MODE-OUT OF SPECIFICATION OR TOLERANCE. SERVONALNE NOULD NOT MULL AFTER OVERNAUL. FAILURE MAS CONFIRMED DUE<br>TO IMPROPER ASSEMBLY.<br>CORRECTIVE ACTION-60/C RE;NSTRUCTED PERSONNEL IN THE CORRECT OVERHALL AND HANDLING PROCEDURES FOR SERVONALVER. | CT-08-04-086 FAR VERNIER ACTUATOR ASSEMBLY, SERVO V 27-85351-5 ALVE |
|                                               | 8181EN<br>808-8181EN                                                 | MYDRAULIC-A/B<br>Bustainer/Vermier   | FAILURE MODE-OUT OF TOLE ARDS 204 AND 210. FAILURE TALLED BACKMARDS ALLOMIN CORRECTIVE ACTION-60/C R                                                                                                                                                                                                                                                                                                                                                          | HYDRAULIC-A/B<br>BUSTAINER/VERNIER | FAILURE MOE-FAIL TO OPF<br>IREMENTS, FAILURE MAS CO<br>CAUSED BY CONTANIMATION                                                                                                                                                                                                                    | CORRECTIVE ACTION-6D/C 5<br>ECHNIQUES. ULTRASONIC CLE                                                                                                                                                                           | HYDRALL IC-A/B<br>Bustainer/Vernier     | FAILURE MODE-OUT OF SPEC<br>TO IMPROPER ASSEMBLY.<br>CORRECTIVE ACTION-60/C R                                                                                                                                                                                  | HYDRAULIC-A/B<br>BUSTAINER/VERNIER                                  |

FAILURE MODE-OUT OF SPECIFICATION, THE PEEDBACK VOLTAGE WAS EXCESSIVE AT MULL DURING STATIC CNECKOUTS. THE MEASURED PEEDBACK POTENTIAL WAS 450 MILLIVOLTS. WHEREAS THE MAXIMUM ALLONED IS 350 MILLIVOLTS. FAILURE WAS CONTINGO, THE RE RACE CAUSE FOR THE MULL SHIFT WAS STORDED TO A CHANGE IN PRESSURE-CONTING, MOZZLE E-CONTINGO, MOZZLE E-CONTINGO, MOZZLE E-CONTINGO, MOZZLE GEOMETRY AND CHANGE WOULD BE CAUSED BY WHEROUD S INVALUM THE CONTINGO, MOZZLE GEOMETRY CHANGE WOULD BE CAUSED BY WHEROUD S INVALUM THE CONTINGO, MOZZLE TARGET SCHEM BURING VALUE OF THE MOZZLE FARM MOZZLE TARGET SCHEM MOZZLE TARGET SCHEM MOZZLE TARGET SCHEM OF THE MOZZLE TIPE OF WENTICAL MOYEMENT OF THE MOZZLE TIPELY.

SENE. BYNAMICS CONVAIR BIVISION

\*\*\*\*

|                                                                      | DIFFICULTIES REVIEW-HYDRAULIC SYSTEM-AIRBORNE                                                                                                                                                                                                                                                                                                                                                                                                                                             | AULIC BYSTEN-AIRBON                                                                                         |                                                   |                                            |                                          |                                                                        | <b>(</b> -      |
|----------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|---------------------------------------------------|--------------------------------------------|------------------------------------------|------------------------------------------------------------------------|-----------------|
|                                                                      | TEST/REPORT NUMBER<br>PAILED COMPONENT NAME                                                                                                                                                                                                                                                                                                                                                                                                                                               | DIF DATA BOUNCE<br>PART NUMBER                                                                              | VEHICLE<br>DATE DIF                               | 017E<br>71ME 01F                           | 0 TH                                     | VEHICLE BITE PRI VENDOR PART NO<br>DATE BIP THE BIP OTH VENDOR PART NO | ·- <del>-</del> |
| THE WEN                                                              | CONTECTIVE ACTION-THE VENDOR CHAINSE REPLACED THE LARSE CROBS-SECTION O-RINS AND MASHER UNDER THE PRESSURE-CONTROL M<br>ORZIE WITH A BRASS SPACER, RETNEEN THE BASE OF THE MOZZIE AND THE CRADLE, AND A VERT SHALL CROSS-SECTION O-RINS. THE<br>SPACER PREVENTS POSSIBLE CONTROL MOZZIE MOVEMENT ALONS ITS CENTERLINE, AND RESULTING IN MULL SHIFT.                                                                                                                                       | S-SECTION O-RING AND D THE CRADLE, AND A CENTERLINE, AND RES                                                | VERY SHAL                                         | HDER THE<br>L CRUSS-<br>HULL BHI           | PRE3<br>8ECTI<br>PT.                     | SUME-CONTROL N<br>ON O-RING. INE                                       |                 |
|                                                                      | CT-88-04-081<br>SUSTAINER ACTUATOR ASSEMBLY                                                                                                                                                                                                                                                                                                                                                                                                                                               | FAR<br>27-05314-010                                                                                         | 116-D<br>620617                                   | 30-A                                       | 7£ 8                                     | YES LICHEL PACIFIC                                                     | 5               |
| F SPECI<br>ERRATIC<br>CAUSE O                                        | FAILURE MODE-OUT OF SPECIFICATION. DURING A PERFORMANCE CENTAUR TEST PROCEDURE APODOSA A TRANIENT SIGNAL WAS OBSERV<br>D. AT 0.3 CPS. THE ERRATIC RESPONSE WAS NOT TRANSIENT, AS INITIALLY REPORTED, BUT WAS PRESENT AT ALL MATAL OPERATIN<br>FREQUENCIES. THE CAUSE OF THE ERRATIC RESPONSE IS ATTRIBUTED TO DAMAGE TO THE PISTON ECARRING THE ACTUATOR BORE DU<br>HIM: INITIAL ASSEMBLY AND DURING SUBSEBUENT ACTUATION. THIS CONDITION CAUSED A RESPONSE LAG AT EACH END OF THE STROK. | TAUR TEST PROCEDURE TITALLY REPORTED, BY ED TO DAMAGE TO THE CONDITION CAUSED A I                           | APOOSA A<br>JT MAS PRE<br>PISTON EC<br>RESPONSE L | TRANIEN<br>Sent at<br>Arring t<br>Ag at ga | 7 4 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5  | HAL MAS CRISERY<br>CRAML OPERATIN<br>TUATOR BORE DU<br>D OF THE STROW  |                 |
| -17 18 A<br>EsPonse<br>CORPORAT                                      | CORRECTIVE ACTION-IT IS RECOMENDED DESIGN EMBINEERS REVIEW THE TEST PARAMETERS TO RESUIRE A REBUN OF THE PROCEDURE<br>Wen an erratic response is encomptered at LOW Frequency. It is also recommended that design engineers consider the<br>Passibility of incorporating an oscilloscope in checkout equipment for visual readout of response at Higher Frequen                                                                                                                           | THE TEST PARAMETERS<br>T IS ALSO RECOMMEND<br>UIPMENT FOR VISUAL I                                          | D TO REGUE<br>ED THAT DE<br>READOUT OF            | RE A RER<br>SIGN ENG<br>RESPONS            | E AT                                     | THE PROCEDURE<br>8 CONSIDER THE<br>NIGHER FRESUEN                      |                 |
|                                                                      | A-88-C4-43ES-F<br>ACTILATOR ABSEMLY                                                                                                                                                                                                                                                                                                                                                                                                                                                       | FAR<br>E7-05514-023                                                                                         | 1367                                              | PACTORY                                    | ž Q                                      | VES LICHEL-PACIFIC 698358                                              |                 |
| OF TOLER<br>ODDERES                                                  | FAILURE MODE-OUT OF TOLERANCE, DURING FINAL NIBBILE CHECKOUT ACTUATOR TURNED PREELY 120 DEGREES ON PISTON SUAFT. FA<br>Lune comfished due to absenct retainer being one-guarter turn from Maring the Mecessary Metal-To-Metal Fitt, most P<br>Obabile cause of Loomerges was established to be absence metatiner built buring 4000 psis Proof Test.                                                                                                                                       | T ACTUATOR TURNED FI<br>URN PROM MAKING THE<br>TAINER BHIFT DURING                                          | HELV 1PO<br>HECESSAN<br>4000 P816                 | DESAEES<br>NETAL-P<br>PROOF T              | 10 P P P P P P P P P P P P P P P P P P P | 810N BUMFT. FA<br>AL FIT. MOST P                                       |                 |
| CH-VENCOR                                                            | CORRECTIVE ACTION-VENCOR CONTACTED AND REVISED 4000 PSIS PROOF-PRESSURE TEST PROCEDURE TO PROVIDE FOR RETORBUING AN<br>Locamiring the assembly retainers after the Proof Test.                                                                                                                                                                                                                                                                                                            | OOF-PACEMUNE TEST PA                                                                                        | NOCEDIAL 1                                        | O PROVID                                   | F 70                                     | RETORBUING AN                                                          |                 |
|                                                                      | 8F-8D-04-4333-F<br>ACTUATOR A88EMBLY, BEAL                                                                                                                                                                                                                                                                                                                                                                                                                                                | FAR<br>E7-0531E-005                                                                                         | 2010<br>20011                                     | ž,                                         | <b>1</b> 0                               | NO LIGHEL-PACIFIC                                                      | •               |
| ERNAL LES<br>ONFIRMED                                                | FAILUME MODE-EKTERMAL LEARAGE. ACTUATOR DEWELOPED LEARAGE OF MYDRAULIC PLUID PART PIRTOM BEAL BURING MISSILE CMECKO<br>17. Failume mas compirmed due to pelt contamination on the o-rimas. Pailume caused by improper installation of o-xim<br>1 and Pelt Wider.                                                                                                                                                                                                                          | OF HYDRAULIC FLUID PAST PISTON SEAL BURING MISSILE (<br>O-RINSS, PAILURE CAUSED BY IMPROPER INSTALLATION OF | 21 F 1810                                         | ACPER IN                                   | 4 1 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4  | NIBBILE CHECKO<br>ATION OF 0-218                                       |                 |
| CORRECTIVE ACTION-VENDOR<br>FREES AND O-RIMES. VENDOR<br>FELT MIPER. | ION-VENDOR RE-INSTRUCTED ALL ASSEMBLY AND INSPECTION PERSONNEL IN PROPER HETHOUS OF INSTALLING FELT M<br>18. VENDOR SHITISTED NEW WRITTEN INSPECTION PROCEDURES REQUIRING CLOSE INSPECTION OF EACH INDIVIDUAL                                                                                                                                                                                                                                                                             | PECTION PERSONNEL II                                                                                        | H PROPER IN                                       | ETHOSS C                                   | 3.5                                      | I'ALLIM6 PELT I                                                        |                 |

GENERAL BYNAMICS CONVAIR DIVISION

18 1UR 1966

|                                                                                                           | DIFFICULTIES REVIEW-HYDRAULIC STSTEM-AIRSORME                                                                                                                                                                                                                                                        | NULIC SYSTEM-AIRBOR                         | *                   |                  |            |                                                                      |                                        |
|-----------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|---------------------|------------------|------------|----------------------------------------------------------------------|----------------------------------------|
| STATEN<br>SUB-STSTEN                                                                                      | TEST/REPORT NUMBER<br>FAILED COMPONENT NAME                                                                                                                                                                                                                                                          | DIF DATA BOURCE<br>PART HUNDER              | VEHICLE<br>DATE DIF | 817E<br>71ME 01F | 7 5<br>7 6 | VEHICLE SITE PRI VENDOR NAME<br>BATE DIP TIME DIP OTH VENDOR PART NO |                                        |
| HTDRAULIC-A/B<br>BUSTAINER/VERNIER                                                                        | 3P-05-04-4334-F<br>ACTUATOR ABBY                                                                                                                                                                                                                                                                     | FAR<br>87-88811-808                         | 2010<br>*10414      | 5                | 22         | LIONEL-PACIFIC                                                       | :                                      |
| FAILUNE MODE-LEAR-EXTERN<br>FAILUNE MOT CONFIRMED BI<br>VCLES.                                            | FAILUNE MODE-LEAR-ERTERNAL. ACTUATOR DEVELOPED LEARAGE OF HYDRAULIC FLUID PAST PISTON SEAL DURING MISSILE CHECKOUT.<br>Failune not compirmed bince learage did not exceed specification limits of 1 daop during 28 pull-strone operating c                                                           | PRAULIC PLUID PAST<br>ATION LINITS OF S DI  | PISTON M            | AL DURING        | M 4        | SILE CHECKOUT.                                                       |                                        |
| CORRECTIVE ACTION-FAILUM ED LIMITS, GD/C INVESTIGA LITT TYPE AND REPLACES FE                              | CORRECTIVE ACTION-FAILURE NOT CONFIRMED. GD/C INFORMED BITE PERSONNEL OF REBULTS OF FAILURE AMALYSIS AND OF SPECIFI<br>ED LIMITS. GD/C INVESTIGATION OF ACTUATOR LEARAGE PROBLEMS IS CONTIMUINS. ECP 344E CHAMES O-RIMES TO TOP VISUAL BUA<br>LITY TYPE AND REPLACES FELT WIPERS WITH TEPLON WINERS. | PERSONNEL OF RESUL.                         | 18 OF FAIL          | DOLLING          | 2          | IND OF SPECIFF                                                       | ······································ |
| HTDRAULIC-A/B<br>SUSTAINER/VERNIER                                                                        | A-09-04-4329-F<br>ACTUATOR ASSEMBLY: BEAL                                                                                                                                                                                                                                                            | FAR<br>27-65312-005                         | 457                 | FACTORY          | <u> </u>   | FACTORY YES LICHEL-PACIFIC 88888                                     | ***                                    |
| FAILURE MODE-EXTERNAL LEAK. DURI<br>AILURE MAS COMFIRNED DUE TO FELT<br>LLATION OF O-RING AND FELT MIPER. | FAILURE MODE-EXTERNAL LEAR. DURING FINAL MISSILE CHECKOUT MYDRAULIC PLUID LEAKED AT GEAR RACK OPENING OF HOUSING. F<br>AILURE NAS COMFIRNED DUE TO FELT STRANDS ON BOTH TOP AND BOTTON SURFACES OF O-RING. FAILURE CAUSED BY IMPROPER INSTA<br>LLATION OF O-RING AND FELT WIPER.                     | PRAULIC PLUID LEAK<br>TON SURFACES OF O-RI  | ID AT GEAN          | RACK OPT         | # A        | OF HOUSING, P.                                                       |                                        |
| CORRECTIVE ACTION-VENDOR<br>IPERS AND O-RINGS. VENDOR<br>FELT WIPER.                                      | CORRECTIVE ACTION-VENDOR RE-INSTRUCTED ALL ASSEDBLY AND INSPECTION PERSONNEL IN PROPER METHODS OF INSTALLING PELT W<br>IPERS AND O-RIMES. VENDOR INITIATED NEW MITTEN INSPECTION PROCEDURES REQUIRING CLOSE INSPECTION OF EACH INDIVIDUAL<br>FELT WIPER.                                             | PECTION PERSONNEL II<br>NOCEDURES REGULAINS | CLOSE IN            | ETHODS OF        | 23<br>23   | FALLING PELT W                                                       |                                        |
| HYDRAUL I C-A/8<br>BUSTA I NER/VERNI ER                                                                   | 60/453-039E/60/ALE-401-00-138<br>013COMECT-613E OFF                                                                                                                                                                                                                                                  | F.1647<br>27-04557-3                        | 1390                | 1-E<br>86.33     | 8 5        |                                                                      | į                                      |
| FAILURE MODE-STRUCTURAL.                                                                                  | FAILURE HODE-STRUCTURAL. FAILURE OF THE RISE OFF DISCONRECT HAS ATTRIBUTED TO HIGH THERMAL ENVIRONMENT CREATED BY T<br>HE LOSS OF THE RADIATION SHIELD DURING THE LIFTOFF SEQUENCE.                                                                                                                  | MS ATTRIBUTED TO                            | ier Der             | AL ENVIR         | Ž          | CAEATED BY T                                                         |                                        |
| BRAULIC FLUID, MITH A CON                                                                                 | BYSTEM EFFECT-LOSS OF STRUCTURAL INTEGRITY. FAILURE OF THE RISCOFF DISCONNECT CAUSED DEPLETION OF BODSTER SYSTEM MY<br>Draulic fluid, with a consessent loss of Wemicle Stability.                                                                                                                   | NISCOPF DISCONDECT                          | CAUGED DEF          | C 1104 Q         | 8          | DTER BYBTEM MY                                                       |                                        |
| WEMICLE EFFECT-LOSS OF V                                                                                  | WEMICLE EFFECT-LOGS OF WEMICLE STABILITY WITH A BUBBEGUENT LOGS OF THE WEMICLE BY SELF BESTRUCTION AT 83.413 SECOND<br>!-                                                                                                                                                                            | LOSS OF THE WENTCLE                         | 94 967 B            | ESTRUCTION       | Z Z        | 99.413 SECOND                                                        |                                        |

COMMECTIVE ACTION-CHECK VALVES AND HYDRAULIC RELEASE LADDER PRESSURE BRITCHED MEME HEATALLED IN THE SOCRETER AND SUS TAINER HIGH PRESSURE LINES UPSTREAM OF THE RISE OFF DISCOMMECTS. IN ADDITION, THE RISE OFF DISCOMMECT PANEL WAS MODI FILD.

GENERAL DYNAMICS CONVAIR DIVISION

| 1                                                            | CONVAIN BIVISION                                                                                                                                                                                                                                  | VI 81 04                                    |                         |                      |               |                                       |   |
|--------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|-------------------------|----------------------|---------------|---------------------------------------|---|
|                                                              | DIFFICULTIES REVIEW-HYDRAULIC STRICK-AIRBORME                                                                                                                                                                                                     | NULIC SYSTEM-AIRBOR                         | ¥                       |                      |               |                                       | ī |
| 8781EH<br>848-8781EH                                         | TESTARFORT HAMER<br>FAILED COMPONENT NAME                                                                                                                                                                                                         | DIF DATA BOUNCE<br>PART NUMBER              | VEHICLE<br>DATE DIF     | 617E<br>713E DIF     | M 10          | PRI VENDOR NAME<br>OTH VENDOR PART NO |   |
| HTDRAVE IC-A/B<br>BUSTAINER/VERNIER                          | A-99-10-194-F<br>TURE ASSEMBLY, 8-NUT                                                                                                                                                                                                             | FAR<br>27-85007-8                           | 186088                  | FACTORY              | <b>2</b> 3    | TES CONVAIR<br>NO                     | • |
| PAILURE MODE-LEAR EXTERI                                     | FAILURE MODE-LÉAR ERTERME-GABEOUB LEAR AROUND D-NUT AT ONE END OF                                                                                                                                                                                 | . EN OF 71.0E.                              |                         |                      |               |                                       |   |
| CORRECTIVE ACTION-PAILUM                                     | ON-FAILURE CONFIRMED-ASSEMBLEAS AT CONVAIR MEME REIMSTRUCTED COMMECT TORBUIMS OF                                                                                                                                                                  | ERE REINSTRUCTED CO                         | AMECT TOR               | VINC OF              | -160          | 6051-76 ALJMINUM-AL                   |   |
| HTDRAULIC-A/B<br>BUSTAINER/VERNIER                           | A-99-10-188F<br>SUSTAINER HYDRAULIC PUMP, BCREMB                                                                                                                                                                                                  | FAR<br>27-06580-3                           | 1096                    | FACTORY              | ž Q           | VICKERS<br>AA-60410-L-B               | : |
| FAILURE MODE-STRUCTURAL-<br>AMSDUCER, THE STUD MAS FR        | FAILURE HODE-STRUCTURAL-ONE OF THE STUDS THAT RETAIN THE PURP CONER BROKE DURING REMOVAL OF THE MASUKER. THE STUD WAS FRACTURED DUE TO OMERTORBUING.                                                                                              | AP COVER BROKE DURI                         | ME REHOVAL              | ¥<br>8               | 2             | MUT TO INSTALL A TR                   |   |
| CORRECTIVE ACTION-SUPERV                                     | CORFECTIVE ACTION-SUPERVISION WAS REQUESTED TO REINSTRUCT EMPLOYEES IN THE CORRECT TOROUING OF MUTS ON HYDRAULIC PU                                                                                                                               | DIPLOYEES IN THE COST                       | RECT TORBI              | 1 to 34 ti           | 9 6 1         | H HYDRAULIC PU                        |   |
| HYDRALIC-A/B<br>SUSTAINER/VERMIER                            | A-90-10-184F<br>SUSTAINER HYDRAULIC PURP, O-RING                                                                                                                                                                                                  | FAR<br>27-06590-3                           | 636<br>630380           | VAP                  | \$ <u>0</u>   | YES VICKERS<br>NO AA-GG41G-L-E        | i |
| FAILURE MODE-LEAK-EXTERN<br>LY ROUGH TEFLON GABRETS 1        | AR-EXTERNAL-HYDRAULIC OIL LEAKAGE FROM THE COMPENSATOR PLAMME AND THE PUMP CASE WAS CAUSED BY BLIBMT<br>Gabreis that had not compressed bupficiently at Lom Pressure to Maré a Good Béal.                                                         | COPENSATOR PLANSE A<br>7 AT LOW PRESSURE TO | NO THE PUR<br>MAKE A SC | P CARE M<br>OD MEAL. | 3             | UNED BY BLIGHT                        |   |
| CORRECTIVE ACTION-RECEIN<br>BD PSIG MITH INLET AND ON        | CORECCIVE ACTION-RECEIVING INSPECTION PROCEDURE 27-9C-10033 WAS REVISED, REQUIRING NEW PUMPS TO BE PRE33URITED TO<br>O PSIG MITH INLET AND OUTLET PLUGGED FOR 24 HOURS WITH NO LEARAGE ALLONED.                                                   | 13 IM3 REVISED, REBU<br>EARAGE ALLOMED.     | IRING NEW               | Puers to             | 7             | NE35UN12ED 10                         |   |
| HYGGAL IC-A/B<br>BUSTAINER/VERNIER                           | 6-32134<br>Accumulator-o Rim                                                                                                                                                                                                                      | U17-PET<br>27-06533-3                       | *05043                  | OTHER                | Ş ş           | PEACOCK<br>\$1303-3                   | • |
| FAILURE MODE-LEAR-INTERN<br>AS FOUND THAT 18.0 ML OF<br>BS4. | FAILURE MODE-LEAR-INTERNAL-UPON CONCLUSION OF THE TEMPERATURE TEST AND WHEN THE UNIT WAS EXAMINED FOR LEARAGE. IT W<br>8 FOLMO THAT 18-0 ML OF HTDRAULIC PLUID MAD LEARED ACROSS THE PISTON O-RIMS INTO THE PHEUMATIC SIDE. REF. 2/M E07-0<br>84. | AE 1687 AND MHEN TH<br>HE PISTON O-RIMS IN  | TO THE PART OF          | EXAMINE              | 9 7 9<br>19 . | LEAKASE, 17 W<br>REF. 2/H 207-0       |   |
| CORRECTIVE ACTION-CONTIL                                     | CORRECTIVE ACTION-CONTINUE TEST. NO CORRECTIVE ACTION TAREN.                                                                                                                                                                                      |                                             |                         |                      |               |                                       |   |

CONVAIR DIVIDION

DIFFICULTIES REVIEW-HYDRAULIC SYSTEM-AIRBORNE

15 JUN 1066

|                                             | •                                                   |                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                  | • • • • • • • • • • • • • • • • • • • •  |                                                                                                                                                                         |                                                                                                                                                                                                                                  | 77.00                                |                                                                                                                                                                     |                                                                                                                                                                                                                     | *****                                                  |                                                                                                                                                                                               |
|---------------------------------------------|-----------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PRI VENDOR NAME<br>OTH VENDOR PART NO       | TES LICHEL PACIFIC 686847<br>NO                     | MOER DUFING HYDRAUL.                                                                                                                                                                                                                                                                   | O-RING, BACKUP RIN<br>INSPECTION AND ASS<br>APS AND POROSITY.                                                                                                                                                                                                                                                                                                    | 7ES VICKERS<br>NO AA-60410-L-2           | ED BY A CRACK IN TH                                                                                                                                                     | NTROL INSPECTION OF<br>E1: 1963.                                                                                                                                                                                                 | YES ACCHESTER<br>NO 6803-719-1       | THIS MAS CAUSED BY                                                                                                                                                  | ITROL HEABURED, USE                                                                                                                                                                                                 | YES KONLER<br>NO RIE47-6                               | WAFACE ON THE OUTLE                                                                                                                                                                           |
| VEHICLE BITE<br>DATE DIF TIME DIF           | FACTORY                                             | 71M6 CYL.                                                                                                                                                                                                                                                                              | MATALLIM<br>ISSUED TO<br>VOIDS, L                                                                                                                                                                                                                                                                                                                                | Q81F-1                                   | 3                                                                                                                                                                       | UALITY CO                                                                                                                                                                                                                        | PACTORY                              | THE BABE.                                                                                                                                                           | ALITY COR                                                                                                                                                                                                           | FACTORY                                                | SCORED I                                                                                                                                                                                      |
| VEHICLE<br>DATE DIF                         | 810-0<br>630503                                     | THE ACTUA                                                                                                                                                                                                                                                                              | HODS FOR I<br>IPER MERE<br>BLISTERS.                                                                                                                                                                                                                                                                                                                             | 24E<br>630430                            | N THE UNIT                                                                                                                                                              | 6 CLOSER 0                                                                                                                                                                                                                       | E1 E0                                | <b>1114 3973</b>                                                                                                                                                    | BETTER BU                                                                                                                                                                                                           | 1096                                                   | A VOETO BY A                                                                                                                                                                                  |
| DIF DATA SOUNCE<br>PART NUMBER              | FAR<br>87-63312-605                                 | PAST THE SCALS ON<br>THE SUMFACE OF T                                                                                                                                                                                                                                                  | DEL IN PROPER MET<br>ION OF EACH FELT M<br>DAL REQUIREDENTS,                                                                                                                                                                                                                                                                                                     | FAR<br>27-06380-3                        | C INCT PITTING O                                                                                                                                                        | O HE IS INSTALLIN<br>I TEST OF THIS PLA                                                                                                                                                                                          | FAR<br>27-06562-3                    | I MAS FOLIDO AT THE                                                                                                                                                 | STATED THAT HE MILL INSTITUTE BETTER GUALITY CO<br>THE MATERIAL SIZE AND CLEANLINESS HORE RISIDLY.                                                                                                                  | FA4<br>87-08860                                        | END FITTING MAS C<br>ASSEMBLY.                                                                                                                                                                |
| TEST/REPORT NUMBER<br>FAILED COMPONENT MANE | NZ-9D-04-4291-P<br>Vernier actuator assembly, Beals | FAILURE HODE-EXTERMAL LEAR, HYDRAULIC OIL REPORTEDLY LEARED PAST THE SEALS ON THE ACTUATIME CYLINDER DURIYG HYDRAUL<br>IC OFERATIONAL TESTS, LEARAGE WAS CAUSED BY WIPER MATERIAL ON THE SUMFACE OF THE SEALING O-RING DUE TO IMPROPER PREP<br>ARATION AND ASSEMBLY OF THE FELT WIPER. | CORECTIVE ACTION-REINSTRUCTED ASSEMBLY AND INSPECTION PERBONEL IN PROPER METHODS FOR IMSTALLIMS O-RIMS, BACKUP RIN<br>63, AND FELT WIPERS, NEW INSTRUCTION REQUIRING CLOSE INSPECTION OF EACH FELT WIPER NERE ISSUED TO INSPECTION AND ASS<br>EMBLY PERSONNEL. ALL O-RIMSS ARE BEING INSPECTED FOR DIMENSIONAL REQUIREMENTS, BLISTERS, VOIDS, LAPS AND POROSITY. | A-90-10-166F<br>Bustainer mydraulic pund | FAILURE MODE-STRUCTURAL-EXTERNAL MYDRAULIC OIL LEAKAGE AT THE IMLET FITTING ON THE UNIT WAS CAUGED BY A CRACK IN TH<br>. ALUNINUM CASE CASTING AROUND THE STEEL INSERT. | CORRECTIVE ACTION-THE VENDOR HAS INFORMED OF THIS FAILUNE AND HE IS INSTALLING CLOSER GUALITY CONTROL INSPECTION OF<br>INLET FITTING CASTINGS. ALSO THEY ADDED A 1000 PSIG PRESSURE TEST OF THIS PLANKE EFFECTIVE JUNE 21, 1863. | 96-99-10-101F<br>PRESSURE GAGE       | FAILUKE MOSE-LEAK-EXTERNAL-ACCUMULATOR GAS PRECHARGE LEARAGE WAS POUND AT THE CAGE PITTING BABE. THIS WAS CAUSED BY<br>A DEFECTIVE BRAZE JOINT AT THE BOUNDOM TUBE. | CORECTIVE ACTION-VENDOR ANSWER TO VOAR 3337-63 STATED THAT HE WILL INSTITUTE BETTER GUALITY CONTROL MEASURES, USE<br>EM MELDING EGUIPMENT AND TECHNIQUES AND CONFROL THE NATERIAL SIZE AND CLEARINESS MORE RISIBLY. | A-88-10-180F<br>Hydraulic Check Val <b>ve, Pittins</b> | FAILUME MODE-LEAT-EXTERNAL-THE MIDRAULIC OIL LEAKAGE AT THE END FITTIMD MAS CAUSED BY A SCORED BURFACE ON THE OUTLE<br>T FITTIMG. THE DEEP SCRATCH WAS CAUSED BY MISMANDLIMD DUMING ASSENDET. |
| 81816.W<br>8-81816.W                        | MYDRAULIC-A/B<br>Bustainer/Vernier v                | FAILURE MODE-EXTERNAL LEAK, HYDRAULIC OF TO OPERATIONAL TESTS, LEAKAGE WAS CAUSES ARATION AND ASSEMBLY OF THE FELT MIPER.                                                                                                                                                              | CORECTIVE ACTION-REINSTRY 63. AND FELT MIPERS. NEW IN EMBLY PERSONNEL. ALL O-RIM                                                                                                                                                                                                                                                                                 | HYDRAULIC-A/B<br>BUSTAINER-VERNIER       | FAILURE MODE-STRUCTURAL-EXTERNAL MYDRAULIC OIL E ALLHINUM CASE CASTING AROUND THE STEEL INSERT.                                                                         | CORRECTIVE ACTION-THE VENE<br>IMLET FITTING CASTINGS. AL                                                                                                                                                                         | HTD9ALLIC-A/B<br>BUSTAINER/VERNIER P | FAILURE MODE-LEAK-EXTERNAL-ACCUMULATOR GAS PY<br>A DEFECTIVE BRAZE JOINT AT THE BOUPDON TUBE.                                                                       | CORRECTIVE ACTION-VENDOR A                                                                                                                                                                                          | HYDRAULIC-A/B<br>BUBTAINER/VERNIER H                   | FAILURE MODE-LEAS-EXTERNAL FITTING. THE DEEP SCHATCH                                                                                                                                          |

CORRECTIVE ACTION-PRODUCTION MYDRAULIC BYSTEN ASSEMBLIERS MERE INFORMED OF THE FAILURE AND INSTRUCTION ON PROPER AS SEMBLY METHODS MAS SIVEN. THE ABOVE INFORMATION MAS ALSO TRANSHITTED TO THE SUPPORT PUBLICATIONS DEPARTMENT.

GENERAL DYNAHICS CONVAIR BIVIBION

9961 157 11

|                                                                                                                                                                     | DIFFICULTIES REVIEW-HYDRAULIC SYSTEM-AIRBORNE                                                                                                                                                                                                                                                                                                                                                                                                                                                               | RAULIC STOTEN-AIRBON                                                                    | ¥                                          |                                                             |                                                                  |                                |          |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|--------------------------------------------|-------------------------------------------------------------|------------------------------------------------------------------|--------------------------------|----------|
| BYSTEN<br>BUG-SYSTEN                                                                                                                                                | TEST/REPORT NUMBER<br>FAILED COMPOMENT NAME                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | DIF DATA BOUNCE<br>PART NUMBER                                                          | VEHICLE<br>DATE DIF                        | 617E<br>71ME DIF                                            | VENICLE SITE PRI VENCOR MANE DATE DIF THE DIF OTH VENCOR PART NO | PART NO                        |          |
| HYDRAULIC-A/B<br>BUBTAINER/VERHIER                                                                                                                                  | A-98-10-191-F<br>BUSTAINER HYDRAULIC PUMP                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | FAR<br>87-0880-3                                                                        | 1397                                       |                                                             | VES VICKERS<br>NO AA-60410-L-E                                   | 8-1-0                          | 7        |
| FAILURE MODE-LEAR ENTERNAL-HYDRAULIC PLU COKECTIVE ACTION-FAILURE NOT CONTINED.                                                                                     | EXTERNAL-HYDRAULIC PLUID LEAR AT OUTLET PLANKE.<br>FAILURE NOT CONFIRMED.                                                                                                                                                                                                                                                                                                                                                                                                                                   | Plankee.                                                                                |                                            |                                                             |                                                                  |                                |          |
| HTDRAULIC-A/B<br>BUSTAINER/VERNIER                                                                                                                                  | A-80-10-177C<br>HYDRALLIC TUBE ASSDBLY                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | FAR<br>87-65107-707                                                                     | 61E<br>630412                              | š                                                           | YES COMVAIR<br>NO                                                |                                | 22740    |
| FAILURE MOE-LEAK-ENTERMAL-TUBE<br>NOTICED DURING E-SERIES UPDATING                                                                                                  | L-EXTERNAL-TUBE ASSENALT WAS REPORTED TO DE LEAKING WITH BYBTEM PRESSURE AT 3000 PSIG. FAILURE WAS<br>Series updating.                                                                                                                                                                                                                                                                                                                                                                                      | E LEAKING WITH BYOTH                                                                    | M PRESSUR                                  | A1 3000                                                     | PSIG. FAILU                                                      | <b>;</b>                       |          |
| CORRECTIVE ACTION-UNKNO                                                                                                                                             | CORRECTIVE ACTION-LINENDAN. FAILURE ANALYSIS IS NOT CONDUCTED.                                                                                                                                                                                                                                                                                                                                                                                                                                              | e.                                                                                      |                                            |                                                             |                                                                  |                                |          |
| HYDRAULIC-A/B<br>SUSTAIMER/VERNIER                                                                                                                                  | A-90-04-429)-F<br>FEEDBACK TRANSOUCER-ACTUATOR-                                                                                                                                                                                                                                                                                                                                                                                                                                                             | FAR<br>E7-65314-023                                                                     | 135-F                                      | 11                                                          | YES LICHEL PACIFIC<br>NO                                         |                                | 89 10 88 |
| FAILURE MODE-OPEN, ELECTRICA AM POSITION AND COLLD NOT BE CIRCUITED ON THE POSITIVE BID RETAINING PLATE.  CORRECTIVE ACTION-PERIORNEL FOR PLATE MAILE ADJUSTING THE | FAILURE MODE-OPEN, ELECTRICAL, WHEN BUSTAINER HYDRAULIC BYSTEN MAS ENERGIZED, THE BUSTAINER ENSINE MENT TO A PLUS T<br>AM POSITION AND COULD NOT BE CONTROLLED. REPORTED. A CONTINUITY CHECK REVEALED THE PEEDSACK TRANSDUCER TO BE OPEN<br>CIRCUITED ON THE POSITIVE SIDE, LEAD WIRE HAD BEEN PRACTURED WHEN ADJUSTMENT WAS MADE WITHOUT REMOVING THE LEAD WIRE<br>RETAINING PLATE.<br>CORRECTIVE ACTION-PERSONNEL AT ETR MERE INFORMED OF THE CAUSE OF FAILURE. CAUSE WAS MEGLECTING TO LOOSEN THE RETAIN | STEM WAS ENEMELIZED.  INVITY CHECK REMEALL  D WHEN ADJUSTMENT WE  LUSE OF FAILUME. CAUM | THE BUSTALL<br>TO THE FEED<br>TO MADE WITH | MEN ENGIN<br>BACK TRAN<br>HOUT REM<br>HOUT REM<br>ECTING TO | MENERATO A MADUCER TO B VINE THE LE                              | AD WINE<br>AD WINE             |          |
| HTDRAULIC-A/B                                                                                                                                                       | CT-98-02-008F                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | FAR                                                                                     | 1160                                       | 364                                                         | 168                                                              |                                | 216000   |
| BUBIAINER/VERNIER FAILURE MCDE-BTRUCTURAL ALO MERAY DIMGS EXIBTED NIBMATCH OF MATIME FAIR ATTAM PTROLEX RESIM IMPRI                                                 | FAILURE MCDE-BIRUCTURAL. VERMIER-1 ACTUATOR FAIRING MAS FOUND CRACKED IN THREE PLACES DUE TO MISHANDLING. SCRATCHES AND HEAVY DINGS EXISTED ON ALL PROTRUDING SURFACES. CRACK DIRECTION WAS OPPOSITE THE DIRECTION WAS RAYBESTON-WANNISMATCH OF MATTHE FALL PROTRUDING SURFACES. CRACK DIRECTION WAS OPPOSITE THE DIRECTION WAS RAYBESTON-WANNITAM PROCLEX RESIM IMPREGMATED FELT.                                                                                                                          | NAD CRACKED IN THREE DIRECTION MAS OFFICE TO BE                                         | FLACES DU                                  | ECTION IN                                                   | ANDLING. BC<br>LICH MOULD I<br>WAS RATBEST                       | RATCHES<br>NDICATE<br>OR-MAINH |          |
| CORRECTIVE AC. ION-COME.                                                                                                                                            | CORECTIVE ACTION-COMPERNED. NO CORRECTIVE ACTION 16 APPLICABLE. THE ALTERNATE NATERIAL-PHENOLIC PRE- INPREGNATED C<br>Mopped Glass Fiber-approved iam 29, 1862 drawing 27-88822 revision & 18 considered superior and 18 now being used.                                                                                                                                                                                                                                                                    | ICABLE, THE ALTERNATI<br>IEVIBION & 18 CONBID                                           | CRED AUPERI                                | PHENOLIC<br>OR AND 1                                        | PAC- 18-ACM                                                      | WED.                           |          |

SENERAL DYNAMICS CONVAIR BIVISION

3961 MAF 51

本 はないかい

|                                                                                                   | DIFFICULTIES REVIEW-MYDRAULIC SYSTEM-AIRBORNE                                                                                                                                                                                                                                                                                                                                             | LULIC BYBTEN-AIRBORI                                               | •                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                      |   |
|---------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|-----------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|---|
| 171EH<br>146-171EH                                                                                | TEST/REPORT NUMBER<br>FAILED COMPONENT NAME                                                                                                                                                                                                                                                                                                                                               | DIF DATA BOUNCE<br>PART NUMBER                                     | WENTCLE B                                     | BITE PRI                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | WENICLE BITE PRI VENDOR NAME<br>DATE DIF TIME DIF OTH VENDOR PART NO |   |
| MTDRAUL IC-A/B<br>BUSTAINER/VERNIER                                                               | A-96-04-4296-F<br>ACTUATOR ASSEMBLY, BERWO VALVE                                                                                                                                                                                                                                                                                                                                          | FAR<br>87-05314-028                                                | 135-F 11<br>010410                            | . G                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | TES LIGHEL PACIFIC<br>NO                                             | : |
| FAILURE MODE-OUT OF SPEC<br>SPONCE RECORDING, 17 MAS<br>CONFIRMED.                                | PAILUNE MOE-OUT OF SPECIFICATION. FAILUNE REPORTED MAEN AN ABNORMALITY MAS NOTED IN THE SUSTAINER YAW FRESUENCY RE<br>Sponce Recording. It was reported erratic novement could be intected when the engines mere gingaled. Failure was not<br>confirmed.                                                                                                                                  | ABNORMALITY IMS NOT<br>RETECTED IMEN THE EX                        | ED IN THE SU<br>MINES WERE 6                  | STAINER Y                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | N FREQUENCY RE<br>FAILURE MAS NOT                                    |   |
| CORRECTIVE ACTION-PERSON<br>VEILLANCE, HISSILE 135-D (<br>TION.                                   | CORRECTIVE ACTION-PERSONNEL AT ETR NERE HOTIFIED OF THE RESILTS OF THIS TEST AND ARE REEPING THIS PROBLEM UNDER SUR<br>Veillance. Hissile 135-D was ploam so it is not possible to investigate other possible cause for this reported compilion.                                                                                                                                          | LTS OF THIS TEST AN                                                | D ARE KEEPIN<br>Maible Caube                  | FOR THIS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | BLEM UNDER SUR<br>REPORTED CONDI                                     |   |
| HYDRAULIC-A/B<br>SUSTAINER/VERMIER                                                                | MZ-99-10-16EF<br>HTDRALLIC HOSE ASSEMBLY                                                                                                                                                                                                                                                                                                                                                  | FAR<br>27-08875-8                                                  | 1930 FAC<br>030405                            | PACTORY YES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | YES AEROSUIP<br>NO 677159-6-0203                                     | 3 |
| FAILURE MODE-STRUCTURAL-                                                                          | FAILURE MODE-STRUCTURAL-MEN THE NYDRAULIC SYSTEM WAS PRESSURIZED THE METAL BRAID FULLED ANNY FROM THE FITTING. THE<br>Structural Failure was due to a corrosive attack by chloride on the stainless steel braid.                                                                                                                                                                          | ALZED THE HETAL BAL<br>E ON THE STAINLESS (                        | IO PULLED AN<br>ITEL BRAID.                   | AV PROM TO                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | E F111106. 14E                                                       |   |
| CORRECTIVE ACTION-THE AS-<br>BEEN CHANGED TO ELECTROFIL                                           | CORECTIVE ACTION-THE ASSEMBLY LUBRICANT USED) ON THIS UNIT WAS PROMAK, A CHLORINATED OIL. THIS LUBRICANT MAS SINCE<br>BEEN CHANGED TO ELECTROFILM 4396 TO PREVENT CORROSION.                                                                                                                                                                                                              | AS PROMIK, A CHLORI                                                | MATED OIL. T                                  | 418 LUBRIC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | ANT MAS SINCE                                                        |   |
| HTDRAULIC-A/B<br>BUSTAINER/VERNIER                                                                | A-99-04-4237-C<br>Vernier actuator                                                                                                                                                                                                                                                                                                                                                        | FAR<br>27-06574-001                                                | 63040E FAC                                    | FACTORY YES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | YES LICHEL-PACIFIC<br>NO 2778-102                                    | • |
| FAILURE MOE-CONTANIMATIN<br>T-LIKE CONTANIMATION MATE<br>BEFORE FAILURE AMALYBIS (                | FAILURE MOE-CONTANIMATION. VERNIER HYDRAULIC ACTUATOR MAS REJECTED WHEN A PRE-INSTALLATION INSPECTION REVEALED FEL<br>T-Like contanimation material in one of the Hydraulic Ports. Reportedly contanimated assembly has returned to Vendon<br>Before Failure amalysis has started. Failure amalysis is no Longer Possible and Therefore is cancelled.                                     | EJECTED WEN A PRE-<br>REPORTEDLY CONTANII<br>LOMER POSSIBLE AR     | INSTALLATION<br>MTED ASSEMBLE<br>THEREFORE B  | INSPECTION SET SET SE CANCELLE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | M REVEALED FEL<br>MNED TO VENDON<br>ID.                              |   |
| CORRECTIVE ACTION-NOME.                                                                           | CORRECTIVE ACTION-WOME. PAILUME AMALTRIS WAS CANCELLED.                                                                                                                                                                                                                                                                                                                                   |                                                                    |                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                      |   |
| HTDRAULIC-A/B<br>Bubtainer/Vermer                                                                 | A-1A-04-4266-F<br>Vernier Bervo Valve                                                                                                                                                                                                                                                                                                                                                     | FAR<br>27-04208-1                                                  | 6\$040X FAC                                   | FACTORY YES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | YES CADILLAC GAGE                                                    |   |
| FAILURE MODE-OUT OF SPECIANT OF A VERNIER SERVOCTLI. CLE TANGLED IN THE COIL TANGVALVE OPERATION. | FAILUME MODE-OUT OF SPECIFICATION-THE BERVOYALVE REPORTEDLY COULD NOT BE ADJUBTED TO MULL PROPERLY NHEN TESTED AS P<br>ART OF A VERNIER SERVOCYLINDER ASSEMBLY. FAILUME NAS NOT CONTINUE, MONEVER DISASSEMBLY REVEALED A CONTAMINANT PARTI<br>CLE TANCIED IN THE COIL OF THE PEEDBACK SPRING. CONTAMINANT PARTICLE ON THE PEEDBACK SPRING IS NOT DETRIMENTAL TO SE<br>RYOVALVE OPERATION. | COULD NOT BE Abjust<br>TRHED, HOMEYER DISA<br>PARTICLE ON THE PEER | ED TO MUL. P.<br>SBENDLY REVE.<br>BACK BPRING | NOFERLY WALED A CONTROL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE PROTOCOL OF THE | IEN TESTED AS P<br>ITANINANT PARTI<br>IRINENTAL TO SE                |   |

Parameter at the Market Total Control of the

CORRECTIVE ACTION-CORRECTIVE ACTION WAS INITIATED BY NOTIFFINS THE WENDER OF THE RESULTS OF THIS ANALYSIS AND RESUL

CONP. A BIVIBION

11 104 1166

|                                                                                 | FAILED COMPONENT NAME                                                                                                                                                                                                                                                                                                           | PART HUMBER                                                                                                                      | DATE DIF TIM                             | M DIT OTT             | VEHICLE SITE PRI VENDOR NAME DATE DIP TIME DIP OTH VENDOR PART NO |             |
|---------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|-----------------------|-------------------------------------------------------------------|-------------|
| STED NECESSARY CORRECTIVE                                                       | NECESSARY CORRECTIVE ACTION BE TAKEN TO PREVENT A RECU                                                                                                                                                                                                                                                                          | A RECURRENCE OF BERNOVALVE                                                                                                       | CONTAMINATION.                           |                       |                                                                   | 99499       |
| HTDRAUL IC-A/B<br>BUSTAINER/VERNIER                                             | A-88-04-4880-F<br>WENNER ACTUATOR ABSEMBLY, SEAL                                                                                                                                                                                                                                                                                | FAR<br>27-03311-015                                                                                                              | 135-7 11                                 | <u> </u>              | YES LIGHEL PACIFIC<br>NO                                          |             |
| FAILURE MODE-VERNIER SEI<br>6 A CHECKOUT PROCEDUME.<br>D TO FELT CONTANIMATION. | FAILURE MOCE-VERNIER SERVO CYLINDER ABSY REPORTEDLY DEVELOPED LEARALE OF HYDRAULIC FLUID PAST THE PISTON SEAL DURIN<br>6 a checkout procedure, learage rate was 1 drop every 88 to 40 minutes. Pailure was confirmed. Failure was attribute<br>D to felt contamination.                                                         | PED LEAKAGE OF HYDA.<br>40 HINUTES. PAILUR                                                                                       | INTE FLUID PAY                           | 17 THE P.1            | SION SEAL DURIN<br>E MAS ATTRIBUTE                                | <del></del> |
| CORRECTLYE ACTION-RE-IN WIPERS AND O-RINGS. NEW CLOSE INSPECTION OF EACH        | COKECTIVE ACTION-RE-INSTRUCTION OF ALL ASSENBLY AND INSPECTION PERSONNEL IN THE PROPER HETMOUS FOR INSTALLING FELT<br>WIPERS AND C-RIMSS. NEW HRITTEN INSPECTION INSTRUCTIONS WERE ISSUED TO ASSENBLY AND INSPECTION PERSONNEL, REQUIRING<br>CLOSE INSPECTION OF EACH INDIVIDUAL FELT WIPER IN THE WENNIER ACTUATOR CYLINDER.   | CTION PERSONNEL IN THE ISSUED TO ASSENDED TO ASSENDED TO ASSENDED TO ASSENDED TO ASSENDED TO A SECURITY OF THE ACTUATION CYLINDS | NE PROPER NETI<br>T AND INSPECTI<br>ER.  | IQUS FOR              | INSTALLING FELT<br>HMEL, REBUIRING                                |             |
| HTDRAUL IC-A/B<br>SUSTAINER/YERNIER                                             | A-96-04-4276-F<br>VERNIER ACTUATOR ABSEMBLY, BEAL                                                                                                                                                                                                                                                                               | FAR<br>27-85311-811                                                                                                              | 135-F ETA<br>630321                      | 7£8                   | YES LIGHEL PACIFIC                                                | •           |
| FAILUKE MODE-LEAK SERWO<br>STALLATIOM AS REPLACEMEN<br>M 4 APRIL 1963, FAILUMES | FAILUKE MODE-LEAK SERVO CYLINDER ASSY REPORTEDLY DEVELOPED LEAKAGE OF MYDRAULIC FLUID PAST THE PISTON SEAL AFTER IN<br>Stallation as replacement on the missile. Leakage mas & drops per hour, same reported failung on s/m 203-0880 umit o<br>m 4 april 1943, failures mot comfinmed.                                          | LEAKAGE OF MYDRAUL.                                                                                                              | IC FLUID PAST '                          | NE P1810              | N BEAL AFTER IN<br>EGS-DOSG UNIT O                                |             |
| CORRECTIVE ACTION-MONE-FAILURE NOT CONFITMED.                                   | FAILURE NOT CONFITNED.                                                                                                                                                                                                                                                                                                          |                                                                                                                                  |                                          |                       |                                                                   |             |
| MYDRAULIC-A/B<br>BUSTAINER/YERNIER                                              | A-A9-04-42-40-F<br>Vernier actuator assembly, swaft & 27-85312-805<br>Eal                                                                                                                                                                                                                                                       | FAR<br>8 27-85512-805                                                                                                            | 1630 FAC                                 | FACTORY YES           | TES LICHEL PACIFIC<br>NO                                          | 75          |
| FAILURE MODE-LEAK EXTER<br>RUMMING IME BYSTEM FAILE                             | FAILURE MOE-LEAK EXTERNAL. ACTUATOR DEVELOPED A MYDRAULIC LEAK IN THE SHAPT SEAL AREA AFTER SHUTDOMN OF SYSTEM. RE<br>Inming the system failed to reproduce any moticeable learage. Failure was not confirmed by failure amalysis.                                                                                              | LEAK IN THE SHAFT :<br>SE. FAILURE WAS NOT                                                                                       | MEAL AREA AFTE<br>COMFIRMED BY           | PAILURE A             | H OF BYSTEN. RE<br>MALYSIS.                                       |             |
| CORRECTIVE ACTION-RE-IN<br>MIPEKS AND O-RINGS, NEW<br>CLOSE IMPRECTION OF EAC   | CORECTIVE ACTION-RE-INSTRUCTION OF ALL ASSEMBLY AND INSPECTION PERSONNEL IN THE PROPER METHODS FOR INSTALLING FELT<br>WIPERS AND O-RINGS. NEW MRITTEN INSPECTION INSTRUCTIONS NERE ISSUED TO ASSEMBLY AND INSPECTION PERSONNELS REGULATING<br>CLOSE INSPECTION OF EACH INDIVIDUAL FELT WIPER IN THE VERNIER ACTUATOR CYLINDERS. | CTION PERSONNEL IN<br>NE ISSUED TO ASSENDI<br>IER ACTUATOR CYLIND                                                                | IME PROPER METI<br>LY AND INSPECT<br>ER. | ON PERSON             | INSTALLING FELT<br>MAEL, REQUIRING                                |             |
| HYDGAULIC-A/B<br>BUSTAINER/VERNIER                                              | 40163-0C48/A1-401-00-193                                                                                                                                                                                                                                                                                                        | 711647                                                                                                                           | 1030 A-1                                 | 9 9                   |                                                                   |             |
| FAILUME MODE-FAIL DUMING                                                        | FAILUME MODE-FAIL DURING OPSRATICM-BUSTAINER/VERNIER HTD. PRESS BEGAM A DECAY PROM 3093 PSIG AT 148 SEC TO ZERO PSI<br>6 ay 141 afch. Chuse was probably result of bibbild Pitch instability at 103 BECS AND THE ABMORMAL VIGRATIOM AND SMO                                                                                     | PRESS BEGAN A DECAY<br>Notability at 103 &                                                                                       | PROM 3088 PSI<br>ECS AND THE AS          | 6 AT 148<br>WORMAL VI | SEC TO ZERO PSI<br>GRATICH AND SHO                                |             |

STRIEN EFFECT-DEPLETION OF LIBUID BUPPIT-AT 349 BEC WENLIER BOLO, BUSTAINER AND MAR ACCUMULATORS BEGAM DIRCHARGE IN

GENERAL DYNATICS CONVAIR DIVISION

9901 NOF ST

| ****                                                                           | DIFFICULTIES REVIEW-HYDRAULIC SYSTEM-AIRBORNE                                                                                                                                                                                                                                                                      | AULIC SYSTEM-AIRBORN                                                                                                             | *                                 |                          |                                       |        |
|--------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|--------------------------|---------------------------------------|--------|
| 8781EN<br>8US-878TEN                                                           | TESTARFORT NUMBER<br>FAILED COMPONENT NAME                                                                                                                                                                                                                                                                         | DIF DATA BOUNCE<br>PART NUMBER                                                                                                   | VEHICLE BITE<br>DATE OIF TIME DIF | 917E 91F                 | PRI VENDOR NAME<br>OTH VENDOR PART NO |        |
| TO HTD STRIEN, BUST, ENG HOVED LATOR BOTTOMED OUT AT 184 SEC.                  | TO HTD STRIEM. BUST. ENG MOYED TO THE STOPS AT 188 SEC. MAN ACCUMULATOR BOTTONED OUT AT 180 SEC.                                                                                                                                                                                                                   | ACCUMULATOR BOTTONED                                                                                                             | 2 TA 1.00                         | 10 MC. VE                | VERNIER BOLO ACCUMU 607151            | 1811   |
| VEHICLE EFFECT-LCSS OF<br>UC ED AFTER 240 SEC AND                              | VTHICLE EFFECT-LC38 OF VEHICLE STABL.ITV-RESULTING IN SHUTDOMN OF SUSTAINER AND VERNIER EMGINES. MISSILE SELF DESTR<br>Ucted after 248 sec and tank section impacted approx. Bod n. Miles down range.                                                                                                              | DAN OF BUSTAINER AND<br>HILES DOWN RANGE.                                                                                        | VERNIER                           | [N6]NEB. #               | 1881LE BELF DESTA                     |        |
| C. MRECTIVE ACTION-MONE, SECONDARY FAILURE.                                    | . SECONDARY FAILURE.                                                                                                                                                                                                                                                                                               |                                                                                                                                  |                                   |                          |                                       | ·      |
| HTDRAULIC-A/B<br>BUSTAINER/VERNIER                                             | A0463-0048/A1-401-00-193                                                                                                                                                                                                                                                                                           | FLICHT                                                                                                                           | 1930                              | A1 NO<br>180 8EC. NO     | 22                                    | 888188 |
| FAILURE MODE-FAILED DUR 1 LOSS OF LOX TO PUMP IN EEN 160 AND 170 SECS. VE      | FAILURE MODE-FAILED DURING OPERATION. LOSS OF HYDRAULIC PRESS AFFECTED HS VALVE AND DECREASED SUSTAINER PERFORMANCE.<br>1 LOSS OF LOX TO PUMP IMLET ATTRIBUTED TO CHANGES IN MISSILE ACCELERATION. MISSILE STARTED TUGGLING AT 155 SEC. BETW<br>EEN 160 AND 170 SECS. VERNIER THRUST INDICATED A DECREASING TREND. | SS AFFECTED HS VALVE<br>ACCELERATION. MISSI<br>TREND.                                                                            | : AND DECR                        | EASED SUST<br>TURBLINE   | AINER PERFORMANCE<br>AT 155 BEC. BETW |        |
| SYSTEM EFFECT-OPERATION STOPS PRENATURELY.                                     | H STOPS PREMATURELY.                                                                                                                                                                                                                                                                                               |                                                                                                                                  |                                   |                          |                                       |        |
| VEHICLE EFFECT-PRENATUR<br>PERATION AT 192 AND 204<br>ELY 300 NAUTICAL MILES D | VEHICLE EFFECT-PRENATURE PROPULSION SHUTDOM, AT 201 BEC. THE SUSTAINER ENGINE FLANED OUT. WERNIER 1 AND 2 CEASED O<br>Peration at 192 and 204 seconds respectively. Wissile destructed after 246 bec. And tank section impacted approximat<br>Ely 300 nautical miles dominance.                                    | BEC. THE BUSTAINER ENSINE FLANED OUT. VERNIER 5 AND E CEABED O<br>DESTRUCTED AFTER 248 BEC. AND TANK BECTION IMPACTED APPROXIMAT | PLANED OU<br>AND TANK             | I. VERNIER<br>JECTION IN | 1 AND E CEASED OPACTED APPROXIMAT     |        |
| CORRECTIVE ACTION-MONE.                                                        | •                                                                                                                                                                                                                                                                                                                  |                                                                                                                                  |                                   |                          |                                       |        |
| MYDRAULIC-A/B<br>BUSTAINER/VERNIER                                             | MSE-75/01-601-00-63<br>ACCUMALATOR                                                                                                                                                                                                                                                                                 | FLIGHT<br>27-06567-3                                                                                                             | 63F<br>630315                     | D1 V 811.17 N            | 7ES BENDIX<br>NO 3057973              | 987119 |
| FAILURE MODE-LEAK-EXTER                                                        | FAILURE MODE-LEAK-EXTERNAL. VERNIER-BOLO ACCUMALATOR BOTTOMED OUT AFTER 12.0 BECOMDS OF OPERATION. MINIMUM SYSTEM P<br>ERSURIZATION TIME IS 15.0 BECOMDS.                                                                                                                                                          | ED OUT AFTER 12.6 M                                                                                                              | to somo                           | OPERATION.               | MINIMUM SYSTEM                        |        |
| CYSTEM EFFECT-DEPLETION EMGINES 1 SECOND AFTER                                 | OFSTEN EFFECT-DEPLETION OF LIGUID BUPPLY. LOSS OF HYDRAULIC PLUID RESULTED IN LOSS OF PLIGHT CONTROL TO THE WERNIER<br>ENGINES I SECOND AFTER THE ACCUMULATOR BOTTONED OUT.                                                                                                                                        | FLUID RESULTED IN 1                                                                                                              | 288 G P.                          | IGHT CONTR               | OL TO THE VERNIEA                     |        |
| WEHICLE EFFECT-NONE.                                                           |                                                                                                                                                                                                                                                                                                                    |                                                                                                                                  |                                   |                          |                                       |        |
| CORRECTIVE ACTION-UNKNOWN.                                                     | OH.                                                                                                                                                                                                                                                                                                                |                                                                                                                                  |                                   |                          |                                       |        |
| HYDRAULIC-A/B<br>BUSTAINER/VERNIER                                             | A-AB-O4-4239-F<br>Vernier actuator Abbemply, Bhaft & 27-65313-605<br>Eal                                                                                                                                                                                                                                           | FAR<br>27-05311-005                                                                                                              | 1630<br>650313                    | FACTORY                  | YES LICHEL PACIFIC                    | 2000   |
| FAILURE MODE-LEAK EXTER NUMBER THE SYSTEM FAILS                                | FAILURE MODE-LEAK EXTERNAL. ACTUATOR DEVELOPED A MYDRAULIC LEAK IN THE BHAFT BEAL AREA AFTER BHUTDCAN OF SYSTEM. RE<br>RUMNIMG THE SYSTEM FAILED TO REPRODUCE ANY MOTICEABLE LEARAGE. FAILURE WAS NOT CONFIRMED BY FAILURE ANALYSIS.                                                                               | LEAR IN THE BHAFT BI<br>E. FAILURE WAS NOT (                                                                                     | EAL AREA A                        | FTER BHUTE<br>BY FAILURE | CAM OF STSTEM. RI.                    |        |

COMBECTIVE .CTION-AB NO PAILURE OCCURED AND AB THE REPORTED PAILURE WAS OF THE BORT TENDING TO REDUCE RELIABILITY.

IT MAS ADVANTEGEOUS TO REMOVE THE UNIT. REMOVAL, HOWEVER, MUST BE MADE WITH EMBINEERING AND PRODUCTION JUDGEMENT. TH
IS MAS STRESSED, DURING DISCUSSION MITH FACTORY PERSONNEL, AS THE APPROPRIATE CORRECTIVE ACTION OF THIS FAILURE.

GENERAL DYNAMICS CONVAIR BIVISION

18 1UN 1868

4

1

|                                                                                                             | DIFFICULTIES REVIEW-HYDRAULIC SYSTEM-AIRBORNE                                                                                                                                                                                                                                                                                                                                                           | IULIC SYSTEM-AIRBOR                                          | ¥                                                         |                                     |                          |                                                                      |                                         |
|-------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|-----------------------------------------------------------|-------------------------------------|--------------------------|----------------------------------------------------------------------|-----------------------------------------|
| 3737EH<br>318-3737EH                                                                                        | TEST/REPORT NUMBER<br>FAILED COMPONENT MANE                                                                                                                                                                                                                                                                                                                                                             | DIF DAT! SOURCE<br>PART NUMBER                               | VEHICLE<br>DATE DIF                                       | 817E<br>71ME DIF                    | PRI VE                   | VEHICLE SITE PRI VENDOR MAME DATE DIF OTH VENDOR PART NO             | <u> 1</u>                               |
| HYDRAULIC-A/B<br>BUBIAIHET/VERNIER                                                                          | A-38-04-4489-F<br>SUSTAINER ACTUATOR ASSEMBLY, BEARI EY-ESSIG-0ES<br>NG                                                                                                                                                                                                                                                                                                                                 | FAR<br>27-65314-023                                          | 75F<br>650308                                             | NCAHORE                             | 7E8 CF                   | BYCANORE YES CLONEL PACIFIC<br>NO                                    | 0000                                    |
| FAILURE MOE-CONTANIMATIC<br>3F CHLOGIDES INDICATING<br>DEAVENT NUMBEROUS STATE<br>EL FLAME-COOLANT AND FLAM | FAILURE MODE-CONTANINATION. THE AUTUATOR PIBTON ALIGNING BEARING WAS CORRODED. CHENICAL TEBIS REVEALED THE PRESCHCE<br>Of Chlorides indicating corrosion resulted From a Chloride atlack. The actuator assembly has on vehicle typ that uncernet hungerous static tesis. The corrosion was probably due to unusual environmental compitions caused by vaporize flame-coolant and flame-burket blomback. | ATTACK, THE ACTUATOR.                                        | CHENICAL<br>R ASSEMBLY<br>CHOCNTAL CO                     | TESTS REV<br>MAS ON V<br>MOITTIONS  | EALED<br>EMICLE<br>CAUSE | THE PRESENCE<br>75F THAT UND BY VAPORED                              |                                         |
| CORRECTIVE ACTION-NO ACT                                                                                    | CORRECTIVE ACTION-NO ACTION REQUIRED SINCE CORROSION RESULTED FROM UNUSUAL CONDITIONS.                                                                                                                                                                                                                                                                                                                  | D FROM UNUSUAL CON                                           | DITIONS.                                                  |                                     |                          |                                                                      |                                         |
| HTUGAULIC-A/B<br>SUSTAINER/YERNIER                                                                          | AOJ63-0032/P1-601-00-134<br>PLMP, COMPENSATOR                                                                                                                                                                                                                                                                                                                                                           | FL1647<br>27-06590-3                                         | 134F<br>650301                                            | 111                                 | YES VI                   | YES VICKERS INC.<br>NO AA-60410-L-E                                  | 1                                       |
| FAILURE MODE-ERRATIC OPERELE ENTITION. THE MAXIMUM PEAK. OR FLUID CONTAMINANTS, A                           | FAILURE MODE-ERRATIC OPERATION. SUSTAINER HTDRAULIC PURP DISCHARGE PRESSURE PLUCTUATIONS EXISTED THROUGHOUT PUMP OP<br>Hation. The maximum pear-to-pear pluctuations reached ind PSI. Slight Irregularities of the Pump compensator spool,<br>or pluid comtaminants, are the most progable causes.                                                                                                      | KHAKCE PRESSURE PL<br>II. SLIGHT IRREGULA                    | UCTUATIONS<br>RITIES OF                                   | EXISTED<br>THE PUMP                 | THROUGH                  | HOUT PUMP OF                                                         |                                         |
| JYSTEM EFFECT-NOME.                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                         |                                                              |                                                           |                                     |                          |                                                                      |                                         |
| VEHICLE EFFECT-NOME.                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                         |                                                              |                                                           |                                     |                          |                                                                      |                                         |
| CORECTIVE ACTION-MONE-VI                                                                                    | CORRECTIVE ACTION-NOME-VICKERS INC. DETERNINED THAT THE COMDITION NOTED WILL MANE NO DETRINENTAL EFFECT ON PAMP OPE<br>ATION.                                                                                                                                                                                                                                                                           | DITICH NOTED WILL M                                          | AVE NO DET                                                | LINENTAL                            | EFFECT                   | ON PLAN OF                                                           | <del></del>                             |
| HTDRAULIC-A/B<br>BUSTAINER/YERMIER                                                                          | AOJ63-0031/A1-408-00-1/6                                                                                                                                                                                                                                                                                                                                                                                | FLIGHT                                                       | 1000                                                      | A-3<br>810                          | 22                       |                                                                      | *************************************** |
| FAILURE MODE - STRUCTURAL<br>T MINUS 134.05 SECOMOS AN<br>CCUMULATORS DISCHARGED ADD                        | FAILURE MODE - STRUCTURAL, DUE TO THE FAILURE OF THE GROUMD EQUIPMENT TO BATISFACTORILY ACCOMPLISH OIL EVACUATION<br>I MINUS 114.85 SECOMOS AN EXCESSOF HYDRAULIC OIL RENAINED IN THE SYSTEM. AFIER BECO THE YERNIER BOLD AND BUSTAIMER<br>COUMULATORS DISCHARWED ADDITIONAL OIL (UNDER PRESSURE UP TO 1000 PSI) INTO THE BYSTEM RESULTING IN RUPIURE OF THE TM.                                        | EQUIPMEN TO BATIB<br>THE SYSTEM. APTER<br>LODG PSI) INTO THE | PACTORILY ACCOMPL<br>SECO THE VERNIER<br>SYSTEM RESULTING | ACCOMPLIS<br>ERNIER BO<br>ALTING IN | H OLL C                  | JSH OLL EVACUATION A<br>BOLO AND BUSTAINER A<br>IN RIPTURE OF THE TA |                                         |
| BYSTEM EFFECT-OPERATION                                                                                     | BIBIEM EFFECT-OPERATION ROES NOT BIART. THE OIL EVACUATION OPERATION NAS NOT PARFORMED.                                                                                                                                                                                                                                                                                                                 | OPERATION MAS NOT P                                          | LAFORKED.                                                 |                                     |                          |                                                                      |                                         |
| VEHICLE EFFECT-NOME, BATI                                                                                   | VEHICLE EFFECT-NOME, BATISFACTORY HYDRAULIC PRESSURE MAS BUPPLIED DURING POMERED FLIGHT. BIX SECONDS SFTER YCO, A<br>PID INCREASE IN THE NOMMAL PRESSURE DECAY RATE INDICATED THE BUSTAINER MYDRAULIC SYSTEM RESERVOIR FAD AUFTURED.                                                                                                                                                                    | PPLIED DURING POLER<br>E BUBTAINER HYDRAUL                   | ED FLIGHT.                                                | BIX SECO                            | 108 AT                   | TER WOOLA R                                                          |                                         |
| CORRECTIVE ACTION-NOME.                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                         |                                                              |                                                           |                                     |                          |                                                                      | 1                                       |
| HTDRAULIC-A/B<br>BUBTAIMER/VERNIER                                                                          | A-90-04-4218-F<br>VERNIER ACTUATOR ASSENDLY, PLATOR                                                                                                                                                                                                                                                                                                                                                     | FAR<br>47-83548-+ 38                                         | 612069                                                    | £                                   | YES L1                   | YES LIGHEL PACIFIC<br>NO                                             |                                         |

FAILURE MCCE-LEAK INTERNAL. HYDRAULIC PLUID REPONTEDLY LEAKED AROUND YNE ACTUATOR PISTON AT 3000 PSI STATIC AND DYN ANIC PRESSURE DURING STRIEN CHECKUUT. FAILURE NAS NOT CONFIRMED. DUE TO FIELD ATTENPTS TO CORRECT THE REPORTED LEARA

| 9901 WY 41                                                                    | GENERAL DYNANICS<br>CONVAIR BIVISION                                                                                                                                                                                                                             | TNAMICA<br>I VI BION           |                     |                            |                                                              |                  |
|-------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|---------------------|----------------------------|--------------------------------------------------------------|------------------|
|                                                                               | DIFFICULTIES REVIEW-MYDRAULIC SYSTEM-AIRBORNE                                                                                                                                                                                                                    | RAULIC SYSTEN-AIRBOA           | ¥                   |                            |                                                              |                  |
| 8787EH<br>806-8787EH                                                          | TESTAEPORT NUMBER<br>FAILED COMPOMENT NAME                                                                                                                                                                                                                       | DIF DATA BOUNCE<br>PART NUMBER | VEHICLE<br>DATE DIF | VENICLE BITE DATE DATE DIF | PRI VENDOR NAME<br>OTH VENDOR PART NO                        |                  |
| GE, AFFIXING RESPONSIBLE                                                      | PONSIBILITY FOR THE INTERNAL CONDITION OF TO                                                                                                                                                                                                                     | THE UNIT WAS NOT POSSIBLE.     | iore.               |                            |                                                              | :                |
| CORRECTIVE ACTION-TUR<br>T POSSIBLE TO ASSIGN RE<br>ON 15 MEANINGTUL.         | CORRECTIVE ACTION-THE SENT TO RELIABILITY PERSONNEL AT WIR INFORMING THEM OF THE FIELD DISASSEMBLY. SINCE IT WAS MO<br>I POSSIBLE TO ASSIGN RESPONSIBILITY FOR THE INTERNAL COMBITION OF THE UNIT DUE TO FIELD DISASSEMBLY, NO FURTHER ACTS<br>ON IS HEANINGTUL. | INFORMING THEN OF 1            | # 7:0.0<br>70 7:0.0 | 1 84 8 8 EMBL.             | DISABSEMBLY. SINCE IT MAS NO<br>DISABSEMBLY. NO FURTHER ACTI |                  |
| HTDRAULIC-A/B<br>BUSTAINER/YERNIER                                            | A-95-044218F<br>ACTUATOR ASSEMBLY                                                                                                                                                                                                                                | FAR<br>27-05312-008            | <b>612069</b>       | a 174                      | YES LIGHEL PACIFIC                                           | 27.              |
| FAILURE MODE-LEAK EXTE                                                        | AK EKTERNAL-ACTUATOR LEAKED AROUND PISTON AT 3000 PSIS. PAILURE WAS NOT CONFISHED. MONEVER, EVIDENCE<br>In the Field was Found.                                                                                                                                  | 7 3000 P316. FAILURE           | 100 em              | OF INCD.                   | MONEVER, EVIDENCE                                            |                  |
| CORRECTIVE ACTION-UNKIN                                                       | ON-UNKNOWN-FAILURE WAS NOT CONFIRMED.                                                                                                                                                                                                                            |                                |                     |                            |                                                              |                  |
| HTDRAULIC-A/B<br>SUSTAINER/VERNIER                                            | A-50-10-174C<br>HYDRAULIC TUBE ASSEMBLY                                                                                                                                                                                                                          | FAR<br>27-05107-110            | 41E<br>(30£10       | £                          | YES CONVAIR                                                  | 1                |
| FAILUME MODE-LEAK-EXTE                                                        | AK-EXTERMAL-TUBE ASSEMBLY REPORTEDLY LEAKED WITH BYSTEM PRESSURE AT 3000 PSIS DURING E-SERIES UPDATI                                                                                                                                                             | MIN BYSTEN PRESSUR             | E AT 3000           | 7516 BURZI                 | W E-SERIES UPDATI                                            |                  |
| CORRECTIVE ACTION-FAILURE ANALYSIS ICABLE OPERATIONAL TECHNICAL ORDERS.       | CORRECTIVE ACTION-FAILURE AMALYSIS NOT COMDUCTED 40/C ADVISED COGNIZANT PERBONNEL TO IMBURE COMPATIBILITY MITH APPL<br>Cable operational Technical Orders.                                                                                                       | NED COGNIZANT PERBON           | <b>16.</b> 70 IN    | URE COMPA                  | TIBILITY WITH APPL                                           |                  |
| HYDRAULIC-A/B<br>BUSTAINER/VERNIER                                            | A-90-10-173C<br>HYDRAULIC TUBE ABSENDLY                                                                                                                                                                                                                          | FAR<br>87-05107-0              | 912061              | MIN MIN                    | YES CONVAIR                                                  | •                |
| FAILURE MODE-LEAK-EXTE                                                        | AK-EKTEAMAL-TUBE ASSEMBLY REPORTEDLY LEAKED MITH SYSTEM PRESSUME AT 3000 PSIS DURING E-SERIES UPDATI                                                                                                                                                             | MITH BYSTEN PRESSUR            | E AT 3000           | PSI6 DURII                 | MG E-BERIES UPDATI                                           |                  |
| CORRECTIVE ACTION-PAILURE ANALYBIS M<br>LICABLE OPERATIONAL TECHNICAL ORDERS. | CORECTIVE ACTION-FAILURE AMALYBIS NOT COMDUCTED. 40/C ADVISED COGNIZANT PERSONNEL TO INSURE COMPATIBILITY WITH APP<br>Scable operational Technical orders.                                                                                                       | IBED COSMIZANT PERBO           | 10 T                | Bung Com                   | ATIBILITY WITH APP                                           |                  |
| Mydraulic-a/B<br>Bustainer/Vermier                                            | A-60-10-171C<br>MYDRAULIC TUBE A88508LY                                                                                                                                                                                                                          | 7AR<br>27-08107-048            | 61 E<br>61 OE1-     | 5                          | VES CONVAIR                                                  |                  |
| FAILURE MODE-LEAK-ERTE                                                        | FAILUAE MODE-LEAK-EXTERMAL-TUBE ABBEMBLY REPORTEDLY LEAKED WITH BYBTEM PACABUME AT 3000 PRIG BURING E-BERIER UPDATI<br>16.                                                                                                                                       | WITH BYSTER PRESSUR            | E AT 3000           | Pale Bur                   | HE E-BERIES UPDATE                                           | السجيدين المعارب |

GENERAL BYNAHICS CONVAIR DIVISION

11 104 1166

•

|                                                                                   | DIFFICULTIES REVIEW                                                                                                                                                   | DIFFICULTIES REVIEW-HYDRAULIC SYSTEM-AIRBCRNE                  | <b>T</b>            |                  |             |                                  | , |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------|---------------------|------------------|-------------|----------------------------------|---|
| 3131EN<br>318-3131EN                                                              | TEST/REPORT NUMBER<br>FAILED COMPONENT NAME                                                                                                                           | DIF DATA BOUNCE<br>PART NUMBER                                 | VEHICLE<br>DATE DIF | 811E<br>TINE DIF | PR I        | VENDOR NAME<br>VENDOR PART NO    |   |
| COMECTIVE ACTION-PA                                                               | COMMECTIVE ACTION-PAILUME AMALTHE NOT COMDUCTED- 40/C ABVINED COGNITANT PERBONNEL TO INSUME COMPATIBILITY WITH APPLICATE OPERAT. SAI TECHNICAL COMPATIBILITY WITH APP | ABVIDED COCHIZANT PERB                                         | 30EL 70 33          | sou Junes        | PATIBILIT   | T MITH APP                       |   |
|                                                                                   | A-80-10-176C<br>HTORAULIC TUBE ASSEMBLY                                                                                                                               | FAR<br>27-65107-94                                             | 61E<br>640E10       | 5                | VES CONVAIR | AIR                              | • |
| FAILURL MODE-LEAK-EM                                                              | FAILURL MODE-LEAK-EXTERMAL-TUBE ASSEMBLY REPORTEDLY LEAKED CHECKOUT WAS CONDUCTED DURING E-BERIES UPDATING PROGRAM.                                                   | AED WITH BYBTEM PRESBURE AT 3000 PBIG DURING AVBTEM CHECACUTH. | IE AT 3000          | Pale but         | ING AYBIE   | н сисскоит                       |   |
| CORRECTIVE ACTION-FAILURE AN                                                      | CORRECTIVE ACTION-FAILURE AMALTHIS NOT COMOUCTED. GO/C ADVINED COGNIZANT PERBONNEL TO INSURE CONPATIBILITY MITH APP<br>Icable Cperational Technical Orders.           | ADVIDED COGNIZANT PERBO                                        | <b>206.</b> TO 31   | BURE COM         | PATIBILIT   | 7 MI IN APP                      |   |
| HYDRAUL IC-A/B<br>SUSTAINER/VERNIER                                               | A-90-10-172C<br>HTDRAULIC MANIFOLD                                                                                                                                    | FAR<br>27-06100-5                                              | 61E<br>630£10       | <b>5</b>         | VES CONVAIR | A1 A                             | • |
| FAILURE MODE-LEAK-EN                                                              | IK-EFTERMAL-MANIFOLD REPORTEDLY LEARED WITH BYBYEN PRESSURE AT 3000 PBIG DURING E-SERIES UPDATING.                                                                    | I'M BYBIEM PREBBURE AT                                         | 3000 1916           | a seiuna         | -BENIES W   | PDA 71166.                       |   |
| CORFECTIVE ACTION-PAILURE ANALYSIS N                                              | CORFECTIVE ACTION-FAILURE ANALYBIS NOT CONDUCTED. 60/C ADVISED COCHIZANT PERBONEL. ICABLE OFERRATIONAL TECHNICAL ORDERS.                                              | ADVIRED COGNIZANT PERR                                         |                     | BURE COM         | PATIBILIT   | TO IMPURE COMPATIBILITY MITH APP |   |
| HIDRAULIC-A/B<br>SUSTAINER/YERNIER                                                | A-90-10-179C<br>HTDRAULIC TISE ABBUSET                                                                                                                                | FAR<br>27-01107-721                                            | 81E<br>830E16       | E .              | YES CONVAIR | E                                | • |
| FAILURE MODE-LEAK-EXTERNAL, REPORTED<br>8 COMDUCTED DURING E-SERIES UPDATING.     | IK-EXTERIMI. REPORTEDLY LEAKED WITH BYSTEM PRESSURE AT 3000 PSIG DUMING RYSTEM CMECKOUT, CHECKOUT MA<br>Me e-series updating.                                         | EM PRESSURE AT 3000 PB.                                        | • Desire            | 781E4 C4         | CROUT, C    | HECKOUT IN                       |   |
| CORRECTIVE ACTION-UN                                                              | CORRECTIVE ACTION-UNEMONA FAILURE ANALYSIS HOF COMDUCTED. GD/C ADVISED COMMIZANT PERSONNEL TO INSURE COMPATISILITY<br>Hem applicable operational technical orders.    | D. 60/C ADVINED COGNIZA                                        | LNT PERSON          | EL 70 !N         | PINE COM    | A 71016.17V                      |   |
| HYDRAULIC-A/B<br>BUBTAINER/VERNIER                                                | A-80-10-178C<br>HYDRAULIC TUBE ASSEMBLY                                                                                                                               | FAR<br>87-88107-148                                            | 61 E                | <b>5</b>         | VES CONVAIR | A I A                            |   |
| FAILURE MODE-LEAK-EXTERMAL. REPORTEDLY<br>6 COMDUCTED DURING E-8 SERIES UPDATING. | FAILURE MOE-LEAK-EXTERNAL. REPORTEDLY LEARED WITH BYSTEM PRESSURE AT 3000 PSIS DURING STRIEM CHECKOUT. CHECKOUT NA<br>: comducied during e-s series updating.         | EM PRESSURE AT 8000 PB:                                        | 1                   | 7787EN CH        | ECROUT. C   | HKCROUT WA                       |   |

SENERAL BYMANICS CONVAIR BIVISION

10 104 1066

ともとき けいり 歌一番もからくのちが 大きられてかられるから かんない を取りからない かいしゅうしゅ しゅうしん

|                                               |                                                                      | :                                                                                                                                                          | ••••                                       |                                                                                                                                                                                                                                   |                                                                                                                                                                                                           |                                              |                                                                                                                                                                                                                                                                                                                          |                         |                                            |                                                                                                                                                                                                                            |                                                                                                                                                          | ••••                               |
|-----------------------------------------------|----------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|--------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|
|                                               | WENICLE BITE PRI VENDOR NAME<br>DATE BIP TIME BIP OTH VENDOR PART NO |                                                                                                                                                            | FACTORY VEB LIONEL-PACIFIC NO 2792-8       | REPORTED ON FAR SP-98-04-<br>TIATED FAILURE.                                                                                                                                                                                      | UCT BUPPORT CENTER INSTEA                                                                                                                                                                                 | FACTORY YES STERER NO 13000                  | INDER TO EIMIBIT A JERKY<br>B STEEL METAL CHIP BLOCKI                                                                                                                                                                                                                                                                    |                         | FACTORY YES LICHEL-PACIFIC 68688           | PLUID AT A RATE OF THREE LIMITION.                                                                                                                                                                                         | MOS FOR INSTALLING AND I                                                                                                                                 | FACTORY VES CIRCLE SEAL NO PS-319  |
| BORNE                                         |                                                                      | RECOREL TO INSU                                                                                                                                            | 1970 FA                                    | ME AMALVOIS AS :<br>RED A HUMAN IN!                                                                                                                                                                                               | LUNES.                                                                                                                                                                                                    | 72E FA                                       | B VAN BERVOCYL.                                                                                                                                                                                                                                                                                                          |                         | 72E FA                                     | LAKED HYDRAULIC<br>AND FELT CONTAN                                                                                                                                                                                         | IL IN PROPER HET                                                                                                                                         | 1200 FA                            |
| DRAULIC SYSTEM-AIR                            | DIF DATA BOURCE<br>PART NUMBER                                       | VINED COGNIZANT PE                                                                                                                                         | FAR<br>27-06573-3                          | MOVED DURING FAILU<br>PRESSURE, CONSIDE                                                                                                                                                                                           | VERNIER BERVOCYLINDERS WAS CHANGED TO<br>TO PRECLUDE HUMAN INITIATED FAILURES.                                                                                                                            | FAR<br>27-04206-1                            | CAUSED THE YERNIER<br>FAILURE WAS CAUSE<br>IT BE DETERNINED.                                                                                                                                                                                                                                                             |                         | FAR<br>27-85312-805                        | EMBLY REPORTEDLY L.<br>BY A HARD O-RIPS                                                                                                                                                                                    | MEPECTION PERSONAL                                                                                                                                       | FAR<br>87-06568-1C                 |
| DIFFICULTIES REVIEW-HYDRAULIC SYSTEM-AIRBORNE | TEST/REPORT NUMBER                                                   | CORECTIVE ACTION-FAILURE ANALYBIB NOT CONDUCTED. GO/C ADVIBED COGNIZANT PERBONNEL TO INSURE CONFATIBILITY MITH APP<br>ICABLE OPERATIONAL TECHNICAL ORDERS. | 3P-99-04-4118-F<br>ACTUATOR ASSEMBLY, BEAL | FAILURE MODE-LEAR-EXTERNAL-THE PIBTON O-RINGS MAD BEEN RENOVED DURING FAILUNE AMALYBIB AS REPORTED ON FAR 8P-88-64-<br>Alisf. Consequently, the unit would not hold any hydraulic pressure. Considered a muman initiated Failure. | CORRECTIVE ACTION-REWORK AND DISASSEMBLY OF VERNIER SERVOCYLINDERS WAS CHANGED TO THE PRODUCT SUPPORT CENTER INSTEA<br>. CT THE VERNIER SERVOCYLINDER ASSEMBLY AREA TO PRECLUDE HUMAN INITIATED FAILURES. | A-99-64-4172-F<br>VERNIER FLOW LINITER VALVE | FAILURE HODE-ERRATIC OPERATION. THE VERNIER PLOM LIMITER CAUSED THE VERNIER B TAM SERVOCYLINDER TO EMISSIT A JERKT<br>Response during autopilot composite test. The plom Limiter Pailure has caused by a staimless steel netal chip blocki<br>NG THE INTERNAL HOVING COMPOMENTS. BOURCE OF CHIP COULD NOT BE DETERMINED. |                         | A-A9-04-4174-F<br>ACTUATOR ABSEMELY, BEALS | FAILURE MODE-EXTERNAL LEAK. THE WERHIER SERVOCYLINDER ASSEMBLY REPORTEDLY LEAKED HYDRAULIC FLUID AT A RATE OF THMEE<br>Drop's per cycle at 40 psi6. Ammlybia found leakage caused by a hard o-rims and felt contamination. | CORRECTIVE ACTION-INSTRUCTION GIVEN TO ALL ASSEMBLY AND INSPECTION PERSONNEL IN PROPER METHODS FOR INSTALLING AND I<br>SPECTING FELT MIPERS AND O-RINGS. | 6453-06-3105-F<br>CHECK VALVE      |
|                                               | STSTEM<br>SUS-SYSTEM                                                 | CORRECTIVE ACTION-FAILURE ANALYSIS IN<br>LICABLE OFERATIONAL TECHNICAL ORDERS.                                                                             | HYDRAULIC-A/B<br>Bustainer/Vernier         | FAILURE MODE-LEAR-EXTERN<br>4115F. CONSEQUENTLY, THE                                                                                                                                                                              | COMRECTIVE ACTION-RENORK AND DISASSEMBLY OF D OT THE VERNIER SERVOCYLINDER ASSEMBLY AREA                                                                                                                  | HYDRAILIC-A/B<br>Sustainer/Vernier           | FAILURE MODE-ERRATIC OPERESCOISE DURING AUTOFILOT NG THE INTERNAL MOVING CO                                                                                                                                                                                                                                              | CORRECTIVE ACTION-NOME. | HTDRAULIC-A/B<br>Sustainer/Vermier         | FAILURE MODE-EXTERNAL LE.<br>DROPS PER CYCLE AT 40 PS                                                                                                                                                                      | CORRECTIVE ACTION-INSTRUCTION 61V NSFICTING FELT WIPERS AND O-RINGS.                                                                                     | HYDRAULIC-A/B<br>Bustaimer/Vermier |

CORRECTIVE ACTION-PAILURE NOT CONTINUED. VALVE MAS REJECTED IN ERROR.

FAILUME MODE-LEAK INTERNAL-DURING FACTORY CHECK OF MYDRAULIC SYSTEM.

SCHERAL BYNAHICS CONVAIR BIVISION

; [

9901 NOT 81

| SYSTEM<br>SAG-SYSTEM                                                                                    | TESTANDER DIF DATA SOURCE DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NUMBER DE PART NU | DIF DATA SOURCE                             | WEMICLE<br>BATE DIF | 81 TE     | - E           | EATE DIF THE DIP OTH VEHICLE BATE NO |                                       |
|---------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|---------------------|-----------|---------------|--------------------------------------|---------------------------------------|
| HTURALL IC-A/B<br>BUSTAINER/VERNIER                                                                     | A-A8-04-4178-F<br>ACTUATOR ASSEMBLY, SEAL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | FAR<br>27-61312-609                         | 72E<br>610207       | PACTORY   | <b>₹</b> 8    | TES LIGHEL-PACIFIC                   | •                                     |
| FAILURE AMALVOIS-ENTERFAL LEAK. TO MEVERAL DROPS PER MINUTE AT 40 PS 6CD O-RING AND FELT CONTAMINATION. | FAILUME AMLYBIS-ERIERMAL LEME. THE VERMIER BERVOCYLINDER ABSEMBLY REPORTEDLY LEMED HYDRAULIC PLUID AT THE MATE OF<br>Several drops per hinute at 40 psig. Amalybib comfirmed a lem but it was within spec. Lemage was caused by a damm<br>Ed o-ring and felt contanikation.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | ASSEMBLY REPORTEDLY<br>LEAR BUT IT WAS WITH | LEAKED WY           | DRAULIC P | LUID<br>A. CA | AT THE RATE OF<br>USED BY A DAMA     | · · · · · · · · · · · · · · · · · · · |
| CORRECTIVE ACTION-VENDOR                                                                                | CORRECTIVE ACTION-VENDOR TOOK ACTION TO IMPROVE CLEANLINESS AND INSPECTION OF ASSCHBLIES.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | AND INSPECTION OF                           | ABSEMBLIE           | •         |               |                                      |                                       |
| HYERAULIC-A/B<br>BUSTAIMER/YERNIER                                                                      | FAR A-99-04-4110-F<br>FILTER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | FAR<br>E7-08564-803                         | <b>630804</b>       | FACTORY   | 5 Q           | YES PUROLATOR<br>NO 64986-1          | •                                     |
| FAILURE MODE-OUT OF SPEC<br>SPEC LIMIT. THE REPORTED                                                    | FAILURE HODE-OUT OF SPEC. HYDRAILIC PILIER WAS REJECTED POR HAVING A MAK PORE DIAMETER OF 28 MICROMS. 29 MICROM IS<br>Spec Limit. The reported failure was confirmed during Lab Testing.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | T HAVING A MAX POSE<br>ESTING.              | DIAMETER            | M 88 MIG  | POE.          | ES NICAON IS                         | ****                                  |
| CORRECTIVE ACTION-PROCUM                                                                                | CORRECTIVE ACTION-PROCURENENT OF FILTERS PROF THIS VENDOR WAS SUBPENDED.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | AS SUB-ENDED.                               |                     |           |               |                                      | •                                     |
| HTDRAULIC-A/8<br>SUSTAINER/VERMIER                                                                      | 8P-88-10-10EF<br>BUSTAINER HTDRAULIC PUMP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | FAR<br>E7-04580-3                           | £010                | FACTORY   | ₽ ₽           | VICAERS<br>AA-60410-L-B              | •                                     |
| FAILURE MODE-STRUCTURAL.                                                                                | FAILUME MODE-STRUCTUMAL. A HTDRAULIC PRESSURE BUILDUP OCCURNED IN THE RETURN BYSTEN CAUSED THE RUPTURE OF THE UNIT.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | NACD IN THE RETURN O                        | VBTER CAU           | ð<br>Ž    | 5             | 1 of 1 of 1 of 11.                   |                                       |
| CURRECTIVE ACTION-NOME.                                                                                 | CHARECTIVE ACTION-NOME. THIS IS A SECONDARY FAILUME, AN INVESTIGATION IS BEING CONDUCTED ON OTHER COMPONENTS IN THE<br>BYSTEM TO DETERMINE THE CAUSE.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | VESTIGATION IS BEING                        | COMPLETE            | O CH OTHE | 80            | POENTS IN THE                        |                                       |
| HTDRAULIC-N/B<br>BUSTAINE G/VERNIER                                                                     | 8F-88-10-161F<br>BUSTAINER HTDRAULIC PLUID TANK                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | FAR<br>27-00532-9                           | E010<br>630131      | PACTOAY   | ₽ ₽           | BENGO4<br>0863                       | •                                     |
| FAILURE MODE-STRUCTURAL. A PRESSURE SPIRE.                                                              | FAILURE HODE-BTRUCTURAL. DURING PERFURMANCE OF A LEAR TEST OF THE MISSILE HYDRAULIC SYSTEM THE TANK RUPTURED DUE TO<br>A PRESSUNE SPIRE.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | CT THE MISSILE HYDE                         | AULIC BYD           | TCH THE T | ¥             | UPTURED BUE TO                       |                                       |
| CORRECTIVE ACTION-CONVAI<br>IN THE HYDRAULIC SYSTEN.                                                    | CORRECTIVE ACTION-CONVAIR RENOWED ALL BYBIEN COMPONENTS THAT COULD BE DAMAGED OR THAT COULD CAUSE A PRESSURE SPIRE<br>In the hydraulic system.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | AT COULD BE DAMAGED                         | OR THAT C           | OULB CAUS |               | ACSSUAC SPIRE                        |                                       |

SENERAL DYNAMICS CONVAIR DIVISION

9961 MOT 81

|                                                                                      | DIFFICULTIES REVIEW-MYBRAULIC SYSTEM-AIRBORNE                                                                                                                                                                                                                                                                             | IULIC SYSTEM-AIRBORN                                                | <b>.</b>              |                        |                |                                                                     |     |
|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|-----------------------|------------------------|----------------|---------------------------------------------------------------------|-----|
| STSTEM<br>SUG-STSTEM                                                                 | TEST/REPORT HUMBER<br>FAILED COMPONENT MANE                                                                                                                                                                                                                                                                               | DIP DATA BOUNCE<br>PART NUMBER                                      | VENICLE<br>DATE DIF   | 11 ME 01F              | ž š            | WENCLE BITE PRI VENDOR NAME<br>DATE DIF TIME DIF OTH VENDOR PART NO | ·   |
| mydrau. I c-a/b<br>susta i ner/verni er                                              | 1P-00-10-103F<br>Hydraulic Stabing Didecommet Assen 27-00559-1, -3<br>Oly                                                                                                                                                                                                                                                 | FAR<br>27-00858-1, -3                                               | 2019<br>640130        | PACTORY                | 88             | PEACOCK<br>51205-1, -3                                              |     |
| FAILURE MODE-STRUCTURAL.                                                             | FAILURE MODE-STRUCTURAL, SUSPECTED OF MAVING STRUCTURAL DAMAGE DUE TO SYSTEM PRESSURE BUILDUP, THE UNIT MAS MOT DAM<br>660.                                                                                                                                                                                               | NAE DUE TO BYBTEH PR                                                | <b>10 34066</b> 7     | icout. The             | 3<br>3         | T MAS NOT DAN                                                       |     |
| CORRECTIVE ACTION-HONE.                                                              |                                                                                                                                                                                                                                                                                                                           |                                                                     |                       |                        |                |                                                                     |     |
| HYDRAULIC-A/B<br>Bustainer/Vernier                                                   | A-98-10-168-F<br>PPESSURE GAGE                                                                                                                                                                                                                                                                                            | FAN<br>E7-0656 <b>e-</b> \$                                         | 1346                  | E3                     | 20             | YES ROCHESTER GAGE<br>NO 6803-719-1                                 | *** |
| FAILURE MODE-LEAR EXTERNA                                                            | FAILURE MODE-LEAR EXTERNAL-DUE TO DEFECTIVE BRAZING OF THE BOJROCH TUBE TO THE DIAL INDICATOR JOINT.                                                                                                                                                                                                                      | DURDON TUBE TO THE                                                  | DIAL 11001            | CA TOR JOS             | #<br>•         |                                                                     |     |
| CORRECTIVE ACTION-ROCHES! LD TIPS TO BE USED WITH H-                                 | CORRECTIVE ACTION-ROCHESTER SAGE TO USE GENERAL ELECTRIC HALDGEN LEAR DETECTOR FOR MELD INSPECTION. MININTURIZED ME<br>LD TIPS TO BE USED WITH HYDROGEN AS WELDING SAS. CHANGE PLUR MATERIAL AND USE CONTROLLED ATMOSPHEAE DURING TUSE HEAT<br>-TREATING.                                                                 | LOKEN LEAK DETECTOR<br>MATERIAL AND UNE CO                          | FOR VELD<br>WTROLLED  | INSPECTIO<br>ATHOSPHER | #. #.          | HINTURIZED NE<br>IN: TUBE HEAT                                      |     |
| MTDRAULIC-A/B<br>BUSTAINER/VERNIER                                                   | A-JA-04-4131-F<br>SERVO VALVE, SPRING                                                                                                                                                                                                                                                                                     | FAR<br>27-54209-1                                                   | 2010<br>2010<br>2010  | FACTORY                | 50             | YES CADILLAC GAGE<br>NO FCE6-387A                                   | •   |
| FAILURE MODE-ERRATIC OPEN<br>D AND BROUGHT UP AGAIN. H<br>TIME DUE TO A 0.002 INCH I | FAILURE MOSE-ERRATIC OPERATION. THE VERNIER BERVOVALVE MALL CURRENT BHIFTED EACH TIME HYDRAULIC PRESSURE WAS DROPPED AND BROUGHT UP AGAIN. HOMEVER, THE MALL DID NOT BHIFT OUT OF BPECIPICATION LINITS. THE BEVOCYLINDER MALL REPT BHIFT TIME DUE TO A 0.002 INCH PLAY IN THE BPOCK-AND-BLEEVE BECTION OF THE BERVOVALVE. | CURRENT BAIPTED EAC<br>OF BACCIPICATION LIN<br>1 OF THE BEAVONALVE. | H TINE NY<br>178. THE | DRAULIC P<br>BEVOCYLIN | PESSU<br>DER N | RE MA DROPE<br>MAI, KEPT BAIF                                       |     |
| CORRECTIVE ACTION-VENDOR                                                             | CORNECTIVE ACTION-VENDOR ESTABLISHED CLOSER QUALITY CONTROL ON THE SPOOL-AND-BLEEVE SECTION EFFECTIVE APRIL 2, 1965                                                                                                                                                                                                       | ON THE BPOOL-AMB-BL                                                 | <b>EENE BE</b> CT     | 104 [14.[6             | ¥              | APRIL 2, 1963                                                       |     |
| HYDRAUL IC-A/B<br>Bustainer/Vernier                                                  | A-96-10-160C<br>Picisure dace                                                                                                                                                                                                                                                                                             | FAR<br>27-06362-3                                                   | 0110£0                | C18                    | 5 0            | TES ROCHESTER<br>NO 6903-718-1                                      | *   |
| FAILURE MODE-LEAR-ERTERNA<br>E BOURDON TUBE.                                         | FAILURE HODE-LEAR-EXTERNAL. ACCUMILATOR 648 PRECHARGE LEARING THROUGH THE WENT PORT BUE TO A POOR BRAZE JOINT ON TH<br>BOUNDON TUBE.                                                                                                                                                                                      | A THROUGH THE WEST                                                  | PORT BUE              | TO A POOR              | <b>88</b> 43   | 2                                                                   |     |
| CORRECTAVE ACTION-VENDOR                                                             | CORRECT, VE ACTION-VENDOR INSTRUCTED TO IMPROVE HIS BUNLITY CONTROL ON THE SOUNDON TUBE BRAZE JOINT.                                                                                                                                                                                                                      | CONTROL ON THE BOUNG                                                | On Tube e             | AAZE JOIN              | اء             |                                                                     | 1   |

SENERAL BYNAHICS CONVAIR BIVISION

**\*** 

18 JUN 1866

| 9901 Mnr 91                                                                                               | DIFFICULTIES REVIEW-HYDRAULIC SYSTEM-AIRBORNE                                                                                                                                                                                                                                                                                     | AULIC STSTEM-AIRBOR                                                  | 4                       |                      |                               |                                                                      |                                         |
|-----------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|-------------------------|----------------------|-------------------------------|----------------------------------------------------------------------|-----------------------------------------|
| 373/EM<br>8UB-573/EM                                                                                      | TEST/REPORT NUMBER<br>FAILED COMPONENT NAME                                                                                                                                                                                                                                                                                       | DIF DATA SOURCE<br>PART HUMBER                                       | WHICLE<br>DATE DIF      | 817E<br>71ME 01F     | PRI VE                        | WENICLE BITE PRI VENDOR NAME<br>BATE DIF TIME BIF OTH VENCOR PART NO |                                         |
| HYDRAULIC-A/B<br>BUSTAINER/YERNIER                                                                        | SP-SS-10-186F<br>TUBING ASSEMBLY, R-WUT                                                                                                                                                                                                                                                                                           | FAR<br>27-65007-291                                                  | 1000                    | FACTORY              | 7E8 66/C                      |                                                                      |                                         |
| FAILURE MODE-STRUCTURAL-                                                                                  | FAILURE MODE-STRUCTURAL-DURING AN INSPECTION THE B-NUT WAS FOUND TO BE SPLIT.                                                                                                                                                                                                                                                     | found to BE afult.                                                   |                         |                      |                               |                                                                      |                                         |
| CORRECTIVE ACTION-CONVAI                                                                                  | CORECTIVE ACTION-CONVAIR REMONTD FROM STOCK ALUMINMA ALLOY S-NUTS OTHER THAN THOSE OF 6061-TS ALUMINUM ALLOY ALL O<br>D STOCK HAS SEEN FURGED.                                                                                                                                                                                    | B-NUTS O'NER THAN                                                    | PO DECIN                | 061-T6 AL            | 100                           | ארוס אוד ס                                                           |                                         |
| HTGRAULIC-A/B<br>BUSTAINER/VERNIER                                                                        | A-88-08-3031F<br>CHECK VALVE                                                                                                                                                                                                                                                                                                      | FAR<br>27-06568-1                                                    | 1190                    | PACTORY              | 7E8 CIRCLE<br>NO P3-319       | 113 SEAL                                                             | •                                       |
| FAILURE MODE-INTERNAL LE<br>RAGE.                                                                         | FAILURE MODE-INTERMAL LEARAGE. LEARAGE REPORT, OF BO PSI PER DAV. CAUSE NOT KNOMA, AMALYBIS DID NOT REVEAL ANY LEA<br>AGE.                                                                                                                                                                                                        | ER DAY. CAU <b>SE NO</b> T RI                                        | O. ANA                  | V 616 V              | BOT REY                       | TAL ANY LEA                                                          |                                         |
| CORRECTIVE ACTION-NOT CC                                                                                  | CORRECTIVE ACTION-NOT CONFIRMED. PER RAR A-89-00-3621 DATED 630203 A REQUEST UNS MADE FOR ANOTHER LEAR CHECK OF THE<br>Hydraulic reservoir precharge system on 1380. Check uns uns hade-no lears pound.                                                                                                                           | 630203 A REQUEST W                                                   | 18 MADE FO              | R ANDTHE             | LEAR C                        | ECK OF THE                                                           |                                         |
| HTDRAULIC-A/B<br>BUSTAINER/YERNIER                                                                        | MZ-90-10-165F<br>PRE3SURE 646E                                                                                                                                                                                                                                                                                                    | FAR<br>E7-04542-3                                                    | 611069                  | VAFO                 | YES ACCHESTER<br>NO 6903-719- | ACCHESTER<br>6803-718-1                                              | ======================================= |
| FAILURE MODE-LEAK-EXTERN<br>FAILURE WAS REPORTED FRO                                                      | FAILURE MOE-LEAR-EXTERMAL, ACCUMALATOR GAS PRECHARGE DECAY DUE TO A POOR BRAZE JOINT ON THE BOUNDON TUBE, A SECOND<br>FAILURE MAS REPORTED FROM THE FACTORY, A THIRD FAILURE IS REPORTED ON FAR A-98-10-180F AT ETA.                                                                                                              | DUE TO A POOR DAAZI<br>EPORTED ON FAR A-96                           | O THIOL 1               | 1 THE BOA<br>17 ETA. | 100 Tub                       | F. A MCOID                                                           |                                         |
| CORRECT! VE ACTION-VENDOR                                                                                 | CORRECTIVE ACTION-VENDOR INSTRUCTED TO REVIEW HIS BRAZING TECHNIQUES. CONVAIR ACCEPTANCE TESTS SMOULD REINSTATE 100<br>PCT INSPECTION REQUIREMENT AND SMOULD INCLUDE PRESSURE LEAR CHECK.                                                                                                                                         | ECHNIQUES. CONVAIR O                                                 | KCEPTANCI               | TESTS &              | OWD RE                        | INSTATE 100                                                          |                                         |
| HTDRAULIC-A/B<br>BUSTAINER/VERNIER                                                                        | A-89-04-4154-F<br>ACTUATOR ASSEMBLY                                                                                                                                                                                                                                                                                               | FAR<br>27-65314-617                                                  | 630110                  | FACTORY              | VES LIG                       | YES LICHEL PACIFIC 887909                                            | • 7000                                  |
| FAILURE MOE-OUT OF SPEC<br>RING PERFORMME OF EOP 3<br>AMALYSIS COULD NOT CONTI<br>MT AND UNDEFINED CAUSE. | FAILURE MOCE-OUT OF SPECIFICATION, THE BUSTAINER BERNOCYLINDER ASSEMBLY REPORTEDLY ENITTED A MIGH-PITCHED SQUEAL DU AINS PERFORMME OF ESPONSE SMOKED AN OUT-OF-SPECIFICATION PISUME. AMALYSIS COULD NOT COMPIRE A FAILURE OF THE SERVOCYLINDER ASSEMBLY. THE REPORTED FAILURE IS ATTRIBUTED TO A TRANSIE WIT AND UNDEFINED CAUSE. | DER ABBENELY REPORTI<br>Actuator responde bi<br>Beenely, the reporti | COLY ENTY<br>HOMED AN O | TD A HIS<br>NI-07-3H | -PITCHE                       | SOUEAL DU<br>ION FIGURE.<br>D A TRANSIE                              |                                         |

COARECTIVE ACTION-NOWE.

SENCRAL BYNAMICS CONVAIR DIVISION

and the same

A STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STA

GENERAL DYNAHICE CONVAIR DIVIBION

| 9961 NOT 81                                                                       | DISTRICT HISTORY                                                                                                                                                                                                                                                                                                   | 5                                                      | ,                             |             |                                     |       |
|-----------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|-------------------------------|-------------|-------------------------------------|-------|
|                                                                                   | DIFFICULTIES REVIEW-MYDRAULIC STRIGH-AIRBORNE                                                                                                                                                                                                                                                                      | AULIC BYBYEM-AIRBON                                    |                               |             |                                     | _     |
| 8787EH<br>808-878TEH                                                              | TEST/REPORT NUMBER<br>FAILED COMPONENT NAME                                                                                                                                                                                                                                                                        | DIF DATA BOURCE<br>PART NUMBER                         | VEHICLE BITE PRI              | BITE PRI    | NENDOR NAME                         |       |
| HYDRAULIC-A/B<br>BUBTAINER/VERNIER                                                | A-99-04-4083-F<br>ACTUATOR ABBENBLY, BEAL                                                                                                                                                                                                                                                                          | FAN<br>87-08678-8                                      | 1500 FAC                      | FACTORY VE  | TES LICHAL-PACIFIC<br>HO E78E-E     | ***** |
| PAILURE MODE-CONTANINATI                                                          | FAILURE MODE-CONTANIMATION, TH <b>e berno</b> cylinder léared mydrallic fluíd, felt miper found danased and lodsed on o-rim<br>                                                                                                                                                                                    | LIC PLUID. FELT WI                                     | PCA FOMO DAS                  | MECD AND    | NIW-0 NO 079001                     |       |
| CORRECTIVE ACTICA-VENDOR                                                          | CORRECTIVE ACTION-VENDOR INSTRUCTED PERSONEL IN PROPER ASSEMBLY OF ACTUATOR.                                                                                                                                                                                                                                       | MELY OF ACTUATOR.                                      |                               |             |                                     |       |
| HTDRAULIC-A/B<br>Bustainet/Vermier                                                | A-99-04-4056F<br>ACTUATOR ASSEMBLT: SEAL                                                                                                                                                                                                                                                                           | FAR<br>27-85512-805                                    | 70E FAC                       | FACTORY YES | VES LICHEL-PACIFIC                  |       |
| FAILURE MODE-LEAK-EXTERN<br>LEAK WITH PRESSURE AT 300<br>CONTAMINATION IN THE ACT | FAILURE WOE-LEAR-EXTERNAL. THE BERVOCYLINDER LEAKED HYDRAULIC OIL AT THE PIBTON ROD BEAL. THIB MAS A RUMNING-TYPE<br>Leak with pressure at 3000pbig. The reported failure has not comfirmed by functional Tebting. There has considerable<br>Contamination in the actuator union hay have caused the Rumning Leak. | LIC OIL AT THE PIBT<br>CONTINED BY FUNCT<br>NING LEAK. | ON ROD BEAL.<br>JOHAL TESTING | THIS MAS.   | A RUSSING-TYPE<br>MAB CONSIDERABLE  |       |
| CORRECTIVE ACTION-A CHAN                                                          | CORRECTIVE ACTION-A CHAINGE IN THE PROCEDURE FOR NELDING AND PLATING OF THE ACTUATOR BODY WAS MADE TO ASSURE BETTER<br>LEANLINESS IN THIS AREA. 60/C HAS CHAINGED THE SERVOCYLINDER BUILD-UP AREA TO A CONTAINIMATION CONTROLLED AREA.                                                                             | PLATING OF THE ACT<br>BUILD-UP AREA TO A               | UATOR BODY NA                 | S MADE TO   | O ASSURE BETTER<br>LLED AREA.       | ••••  |
| HYDRAULIC-A/B<br>SUSTAINER/VENIER                                                 | AOL 62-0047/60/ALE-401-00-131<br>D13COMECT-R13EOFF                                                                                                                                                                                                                                                                 | FLICHT<br>E7-06557-3                                   | 1310 1-2<br>CE1217            | 2. č        |                                     |       |
| FAILURE MODE-STRUCTURAL.                                                          | FAILURE MODE-STRUCTURAL. FAILURE OF THE RISE OFF DISCOMECT WAS ATTRIBUTED TO MISM THENMAL ENVINOMENT CREATED BY<br>HE LOSS OF THE RADIATION SHIELD BURING THE LIFTOFF SESUENCE.                                                                                                                                    | MAS ATTRIBUTED TO                                      | HIEM THERMAL                  | ENVI ROM    | ENT CAEATED BY T                    |       |
| SYSTEM EFFECT-LOSS OF ST<br>TORAULIC FLUID WITH A BUS                             | STRIEN EFFECT-LOSS OF STRUCTURAL INTEGRITY. FAILURE OF THE RISE OFF DISCONDECT CAUSED BENETION OF BOOSTER SYSTEM IN<br>DRAULIC FLUID WITH A BUSSESUENT LOSS OF VEHICLE STABILITY.                                                                                                                                  | AINE OFF BINCOMECT                                     | CAUBED DE 1-LI                | 11 G G      | PODATER SYSTEM H                    |       |
| VEHICLE EFFECT-LOSS OF 1                                                          | VEHICLE EFFECT-LOSS OF VEHICLE STABILITY. AS A RESULT OF THE LOSS OF VEHICLE STABILITY (INDICATED ON ACENA VEHICLE TELENETY) THE VEHICLE WAS SELF DESTNOYED AT 80.52 SECONDS.                                                                                                                                      | E LOBS OF VENICLE B                                    | TABILITY (11K                 | JCATEB 0    | N AGENA WENICLE                     |       |
| CORRECTIVE ACTION-CHECK<br>TAIMER HIGH PRESSURE LINE<br>SIGNED.                   | COMECTIVE ACTION-CHECK VALVES AND HYDRAULIC RELEASE LADDER PRESSURE BRITCHES MERE INSTALLED IN THE BOOSTER AND SUS<br>Almer High Pressure Lines upstream of the Rise off Discomects. In addition, the Rise off Discommet Pamel has add<br>Johed.                                                                   | PRESSURE BUITCHES<br>CTS. IN ADDITION: T               | MERE INSTALLE                 | IBCORKC     | BOOSTER AND SUB<br>T PAKEL 'NB REDE | •     |
| HTDRAULIC-A/B<br>BUBTAINER/VERNIER                                                | A-88-04-4028F<br>Actuator Assembly, Peedback Transd R7-85318-805<br>Ucer                                                                                                                                                                                                                                           | FAR<br>E7-6531E-605                                    | 70E FA                        | FACTORY 160 | YES LICHEL PACIFIC NO               |       |

PAILURE MOE-OPEN ELECTRICAL-CENTER TAP OF PEEDBACK TRANSDUCER MAS POUND ONEN BURING FINAL ENECKOUT OF VEHICLE TOE. Failure mas caused by Faulty soldering of electrical compectors.

GENERAL DYNARICS CONVAIR DIVISION

| Ì |                                                     | DIFFICULTIES REVIEW-MORAULIC SYSTEM-AIRBORNE                                                                                                                                                                                              | RAULIC STRIEM-AIRBOR                        | ¥                       |                       |            |                                                                      |         |
|---|-----------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|-------------------------|-----------------------|------------|----------------------------------------------------------------------|---------|
|   | SYSTEM<br>SUG-SYSTEM                                | TEST/REPORT NUMBER<br>FAILED COMPONENT NAME                                                                                                                                                                                               | DIF DATA SOURCE<br>PART NUMBER              | VENICLE<br>DATE DIF     | 111E 01F              | # 5<br># 5 | VEHICLE BITE PRI VENDOR MAME<br>DATE DIP TIME BIF OTH VENDOR PART NO |         |
|   | CORRECTIVE ACTION-CRESC                             | TION-CRESCENT ENGINEERING INSTITUTED NEW SOLDERING METHODS AND CHANGED PERSONNEL TO ASSURE 6CXD SOLDER                                                                                                                                    | ERING METHODS AND CH                        | AMECO PCA               | OMEL 10               | ] 🗧        | NE GC30 SOLDER                                                       | :       |
|   | HYDRAULIC-A/B<br>Bubtaimer/Yernier                  | 3P-99-04-4115-F<br>ACTUATOR A33EMBLY: O-RIM                                                                                                                                                                                               | FAR<br>E7-6531E-808                         | 1990                    | PACTORY               | 5 8        | YES LICHEL PACIFIC                                                   | :       |
|   | FAILURE MODE-LEAR-EXTER<br>ORT FINAL CHECKOUT. AMAL | FAILURE MOE-LEAR-EXTERMAL. ACTUATOR REPORTEDLY DEVELOPED LEARACE OF HYDRAULIC OIL PAST A PISTON O-RING DURING PACT<br>ORY FINAL CHECKOUT. AMALYSIS COULD NOT CONFIRM EXCESSIVE OIL LEARAGE.                                               | LEAKACE OF MYDRAULIC<br>L LEAKAGE.          | OL PAST                 | A P18104              | Š          | NG DURING FACT                                                       |         |
|   | CORRECTIVE ACTION-NO FA                             | CORRECTIVE ACTION-NO FAILURE. NO CORRECTIVE ACTION MAS CONSIDERED NECESSARY.                                                                                                                                                              | SIDERED NECESSARY.                          |                         |                       |            |                                                                      |         |
|   | Mydraul IC-A/8<br>Bustainer/Vernier                 | A-98-10-12EF<br>ACCUMAATOR, O-RINS                                                                                                                                                                                                        | FAR<br>27-00558-8                           | 61219<br>661210         | ET.                   | ភ្នំខ      | FEACOCK<br>\$1305-3                                                  | į       |
|   | FAILURE MODE-LEAR-INTER<br>LEED. THE LEARAGE WAS CA | FAILURE MODE-LEAR-INTERNAL-643 PRECHARGE WAS LEAKING PAST THE PISTON SEAL INTO THE MYDRAULIC SIDI<br>Leed. The Learage was caused by the Perneable Nature of the o-ring to migh pressure mitrogen 6as.                                    | THE PISTON SEAL INTO<br>O-RING TO HIGH PRES | THE HYDRA<br>BURE HITRO | ULIC BIDI<br>GEN GAB. | 2          | HYDRAULIC SIDE DURING FILL AND B<br>MITROGEN GAS.                    |         |
|   | CORRECTIVE ACTION-FAILU<br>MATERIAL. THIS IS DOCUM  | CORRECTIVE ACTION-FAILURE ANALTSIS GROUP INITIATED DESIGN CORRECTIVE ACTION RECOMENDING THE UNE OF A HANDER O-RIMS<br>Material. This is documented in Rar A-88-10-3603 ADDITIONAL INFORMATION ON This Failure can be found in Rar A-88-10 | CORRECTIVE ACTION RE                        | CONCIDENCES FAILURE     | THE UME               | 5 5        | HARDER O-RING<br>IN RAR A-98-10                                      |         |
|   | HYDRAUL IC-A/B<br>BUSTAINER/VERNIER                 | A-89-04-4026-F<br>ACTUATOR ASSEMBLY                                                                                                                                                                                                       | FAR<br>27-03312-005                         | 40E<br>4E1207           | FACTORY               | ž š        | YES LIGHEL PACIFIC<br>NO                                             | 36.57.8 |
|   | FAILURE MODE-CONTAMINAT                             | FAILURE MODE-CONTAMINATION. COMPONENT LEAKED MYDRAULIC FLUID MITM NO PMESSUME APPLIED MAILE NOUNTED ON VEHICLE SSE.<br>Failure was attributed to contamination in Mydraulic Pluid                                                         | ID MITH NO PRESSURE                         | APPLIED M               | ic rour               | ē          | N VENICLE OBE.                                                       |         |
|   | CORRECTIVE ACTION-VENDO                             | TICH-VENDOR INSTITUTED TIGHTER BUALITY CONTROLS EFFECTIVE 3/89/83.                                                                                                                                                                        | L8 EFFECTIVE 3/20/43                        | •                       |                       |            |                                                                      |         |
|   | Hydrau, IC-A/B<br>Bustainer/Vernier                 | A-89-04-4050F<br>ACTUATOR ABBENDLY: BERNO VALVE                                                                                                                                                                                           | FAR<br>27-65311-607                         | 90E<br>9E1E03           | PACTORY               | 28         | TES LIGHEL PACIFIC                                                   | ***     |
|   | FAILURE MODE-OUT OF TOL                             | CAILUME MODE-OUT OF TOLERANCE. ACTUATOR WAS REJECTED WHEN SERVO VALVE MALL BHIFTED DURING CHECKOUT OF NIBBILE 68 E.<br>The Failure was attributed to a loose torbue motor in the brayo valve.                                             | BEAND VALWE.                                | TIED DURI               | S CHECKO              | 8<br>5     | " NIBBILE OS E.                                                      |         |
| 1 | CORRECTIVE ACTION-EPPEC<br>TIOM.                    | TION-EFFECTIVE APRIL 8, 1868 CADILLAC GAGE INSTITUTED TIGNTER GUALITY CONTROL OF TORBUE HOTOR INSTALLA                                                                                                                                    | STITUTED TIGNTER BUA                        | LITY CONT               | 0 0 to                | 3          | MOTOR INSTALLA                                                       | 1       |
|   | ······································              |                                                                                                                                                                                                                                           |                                             |                         |                       |            |                                                                      |         |

CONVAIR BIVISION

| NZ-89-10-135F<br>HYDRALL TO DISCOMECT HALF, O-RIMS                                                                                                                                                                                                                                                                                                                                                                              | DIF DATA SOURCE                                                                       | WENTCLE       | 2                                 | HJA ING               | VENDOR MANE                          |   |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------|-----------------------------------|-----------------------|--------------------------------------|---|
| LIC DISCONNECT MALF. O-RIM                                                                                                                                                                                                                                                                                                                                                                                                      | PART NUMBER                                                                           | 10 TA 016     | TIME DIF                          | TES PEACOCK           | BATE DIF TIME DIF OTH VENDOR PART NO | 3 |
| FAILURE MODE-LEAK-ENTERMAL, MYDRAULIC OIL LEAKANE IN THE COUPLED POBITION.<br>Corrective action-Failure mot compremed but to the Pact the Mating Probe P/M 27-00555-1 MAS MOT RETURNED. 4D/C ABVI                                                                                                                                                                                                                               | 2 27-0888-8<br>COPLED POSITION.<br>4 MATING PROSE P/N 8                               | 1-506313-1    | # #O                              | NO SIRBE-B            | 6-8<br>60/C ABVI                     |   |
| NZ-9D-06-201F                                                                                                                                                                                                                                                                                                                                                                                                                   | FAR<br>E7-65007-267                                                                   | 1610<br>61179 | <b>3</b>                          | YES 66/C              |                                      | • |
| FAILINE MODE-STRUCTURAL-TUBE ASSEMBLY PLARED END CRACKED.  CORRECTIVE ACTION-60/C INITIATED STRICT CONTROL OF THE PLARING PROCESSES. ALSO IMPROVE PLARING TECHNISUES.  DRAULIC-A/B A-88-04-4082-F FAR 1500 PACTORY VES LIONE                                                                                                                                                                                                    | MING PROCESSES. ALEC                                                                  | 1 INPROVE     | PACTORY                           | ECHNIQUES<br>TES LICH | CHMIGUES.                            |   |
| USTAINER/VERNIER ACTUATOR ASSEMBLY, SEAL E7-8531E-805 9611E3 NO FAILURE WODE-LEAK-EXTERNAL-DURING FACTORY CHECKOUT NYDRAULIC PLUID LEAKED FROM PISTON SEAL. FAILURE CONFIRMED DUK TO DAMAGED O-RING COKRECTIVE ACTION-VENDOR WAS INFORMED AND STATED THAT CLOSER INSPECTION OF INSTALLATION OF O-RINGS DURING ASSEMBLY OFFICERS. WOLDS AND MAD CALLED FOR DIMENSIONAL REQUIREMENTS FOR APPLICABLE SPECIFICATIONS (ALSO FOR LAPS | ET-8551E-805<br>LIC PLUID LEAKED PRO-<br>LER INSPECTION OF IM<br>REQUIREMENTS PER APP | PISTON B      | FAL. FAIL<br>OF O-RIN<br>REIFICAT | HO CONFT              | ASUCIALY O FOR LAPS                  |   |
| A-89-04-4041F<br>ACTUATOR ASSEMBLY, O-RING                                                                                                                                                                                                                                                                                                                                                                                      | FAR<br>E7-0031E-008                                                                   | 1500          | FACTORY                           | 7ES LION              | YES LIGHEL PACIFIC 087841            |   |
| FAILURE MOE-OUT OF TOLERANCE, ACTUATOR WAS REJECTED UNEN IT LOST MULL DURING CHECKUUT OF MISSILE 150D. PAILURE WAS ATTRIBUTED TO A LEAKT MOZZLE O-RING SEAL IN THE BERNO VALVE.<br>COARECTIVE ACTION-THIS VALVE WAS ASSEMBLED IN AUSUST 1861. A NEW MOZZLE O-RING RETAINER WAS ADDED TO THE AGRNO VALV                                                                                                                          | IT LOST MALL BURING<br>WE.<br>. A MEW MOZZLE O-RIM                                    | CHECKULT      | OF HIBBIL                         | £ 1500. F             | AILUME NA A                          |   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                       |               |                                   |                       |                                      | _ |

GENERAL DYNAMICS CONVAIR BIVISION

| :                                          | 19 4VN 1966                                                                                | CONVAIR BIVISION<br>BIPFICULTIES REVIEW-HYDRAULIC SYSTEM-AIR <b>sonne</b>                                                                                                                                                                                                                                                                                                     | IVIBION<br>IAULIC BTBTEN-AIRBO           | ¥                                              |                                    |                  |                                                                                                                                        |                                          |
|--------------------------------------------|--------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|------------------------------------------------|------------------------------------|------------------|----------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|
| •                                          | SYSTEM<br>SUB-SYSTEM                                                                       | TEAT/AEPCAT NUMBER<br>FAILED COMPOMENT NAME                                                                                                                                                                                                                                                                                                                                   | DIF DATA SOUNCE<br>PART NUMBER           | VENICLE<br>DATE DIF                            | 11 PE 11 PE                        | - H              | PRI VENDOR NAME<br>OTH VENDOR PART NO                                                                                                  |                                          |
| HYERAULIC-A/B<br>BUSTAINER/VER             | HTGRAULIC-A/B<br>Bustainer/Vernier                                                         | 8P-88-54-40ESF<br>ACTUATOR ASSEMBLY, BERNO VALVE                                                                                                                                                                                                                                                                                                                              | FAR<br>27-95311-608                      | 250b<br>421118                                 | PACTORY                            | 200              | YES LICHEL PACIFIC                                                                                                                     |                                          |
| TAILURE                                    | FAILURE MODE-DRIFT-SERVO VALVE MALL<br>TRIBUTED TO A LOOSENESS IN THE SPOOL                | IFT-SERVO VALVE MALL CURRENT CHANGED MITH EACH APPLICATION OF NYDRALLIC PRESSURE. THE PAILURE MAS AT<br>OSENESS IN THE SPOOL AND BLEEVE SECTION OF THE VALVE.                                                                                                                                                                                                                 | ICH APPLICATION OF 1<br>INE VALVE.       | ITDRAULIC PI                                   | Essure.                            | 7 7              | ILUNG WO AT                                                                                                                            | <del></del>                              |
| COMRECI                                    | TIVE ACTION-LIGHER                                                                         | CORRECTIVE ACTION-LIONEL PACIFIC INSTITUTED TIGHTER QUALITY CONTROL EPPECTIVE APRIL 8: 1965.                                                                                                                                                                                                                                                                                  | CONTROL EFFECTIVE                        | APRIL E: SI                                    | į                                  |                  |                                                                                                                                        |                                          |
| HYDRAULIC-A/B<br>SUSTAINER/VER             | HYDRAULIC-A/B<br>BUBTAINER/VERNIER                                                         | A-59-04-3382F<br>8ERVO VALVE                                                                                                                                                                                                                                                                                                                                                  | FAR<br>27-01208-1                        | <b>6</b> 1113                                  | FACTORY                            | 3 9 £            | CADILLAC GAGE<br>CO<br>FC-87-387A                                                                                                      | ***                                      |
| FAILURE<br>9. THE 3<br>RESPONSE<br>EMENTS. | FAILURE MODE-OUT OF TOLE<br>. THE SERVO VALVE FAILED<br>ESPONSE OF SERVO VALVE A<br>MENTS. | FAILURE MODE-OUT OF TOLERANCE. THE SERVO VALVE FAILED DURING PERFORMINCE OF EQUIPMENT OPERATING PROCEDURE (ECP1303.<br>8. The servo valve failed to meet the requirements of Paragraph 8.30.1 of EOP 808.9 Maich 18.4 Meabure of Prequency<br>Response of servo valve and actuator. The Failure has not confirmed. The beave valve met all established test arbuir<br>Ements. | APERFORMANCE OF ELAPH 9.30.1 OF EOP I    | DUIPPENT OFFICE<br>105.8 WILLIA<br>VALVE NET / | 28ATIN6 1<br>18 A NE.<br>U.L. ESTA | AOCEDU<br>BURE O | OF EQUIPMENT OPERATION PROCEDURE (ECP) 309.<br>FOP 509.9 WHICH IS A MEASURE OF PRESURECT<br>MENO VALVE MET ALL ESTABLISHED TEST REGUIN |                                          |
| CORRECT                                    | CORRECTIVE ACTION-NO COR                                                                   | OH-NO CORRECTIVE ACTION. FAILURE NOT CONFIRMED.                                                                                                                                                                                                                                                                                                                               | á                                        |                                                |                                    |                  |                                                                                                                                        |                                          |
| HYDRAULIC-A/B<br>BUSTAINER/VER             | HYDRAUL IC-A/B<br>Bustainer/Vernier                                                        | 4P-99-04-4018F<br>ACTUATOR ASSENDLY                                                                                                                                                                                                                                                                                                                                           | FAR<br>27-05314-017                      | 1970                                           | PACTORY                            | MAS LI           | YES LIGHEL-PACIFIC                                                                                                                     | 94 v v v v v v v v v v v v v v v v v v v |
| PAILURE                                    | E MODE-LEAK EXTERN<br>11 VE ACTION-LIONEL                                                  | FAILURE MODE-LEAK EXTERNAL-DUE TO PARTICULATE CONTAMINATION IN MYDRAULIC PLUED.<br>Corrective action-lionel-pacific instituted tighter evality control to insume c                                                                                                                                                                                                            | A IN HYDRALLIC PLUIS<br>CONTROL TO INDUM | D.<br>Qeaningsd.                               | ż                                  |                  |                                                                                                                                        |                                          |
| MYDRAULIC-A/B<br>BUSTAINER/VER             | Mydraul I C - a / 8<br>Sustainer / Vernier                                                 | A-99-10-131F<br>HYDRAULIC PURP                                                                                                                                                                                                                                                                                                                                                | FAR<br>87-06380-1                        | 1470                                           | PACTORY                            | 16 VI            | VICKERS<br>AA-60403-L-8                                                                                                                | 2                                        |
| FAILURE                                    | E MODE-CONTANINATI                                                                         | FAILURE HODE-CONTANINATION. METALLIC PARTICLES WERE FOUND IN THE PUMP CASE PRIOR TO A COMPONENT PRESSURE CHECK.                                                                                                                                                                                                                                                               | IN THE PUMP CASE PRI                     | 198 TO A CO                                    | PORENT !                           | MESSUR           | E CHECK.                                                                                                                               |                                          |
| CORRECT                                    | TIVE ACTION-BUALITY<br>TECHNIBUES. CORRE                                                   | CORRECTIVE ACTION-BUALITY CONTROL MAS REQUESTED TO CONTACT THE VENDOR AND REQUEST HIM TO IMPROVE HIS CLEANING AND<br>SACHBLY TECHHISUES. CORRECTIVE ACTION IS DOCUMENTED IN RAR A-88-10-3801.                                                                                                                                                                                 | THE VENDOR AND REGI<br>1-00-10-8001.     | <b>EST</b> HIM TO                              | Ingraoue                           | MIB CL           | CANIM AND A                                                                                                                            |                                          |
| •                                          |                                                                                            |                                                                                                                                                                                                                                                                                                                                                                               |                                          |                                                |                                    |                  | . A Name of Advances of Table 2                                                                                                        |                                          |
|                                            |                                                                                            |                                                                                                                                                                                                                                                                                                                                                                               |                                          |                                                |                                    |                  | _                                                                                                                                      |                                          |

SENERAL BYNAMICS CONVAIR BIVISION

| 6961 ROT 61                                                                                                      | DIPPICULTIES REVIEW-HYDRAULIC SYSTEM-AIRBORNE                                                                                                                                                                                                                                                                                                                                                                                            | ULIC SYSTEM-AIRBOR                                                       | ¥                                                                              |                                        |                                                                                                                |             |
|------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|--------------------------------------------------------------------------------|----------------------------------------|----------------------------------------------------------------------------------------------------------------|-------------|
| BYSTEN<br>SCS-SYSTEN                                                                                             | TESTARFORT NUMBER<br>FAILED COMPONENT MANE                                                                                                                                                                                                                                                                                                                                                                                               | DIF DATA BOURCE<br>PART HUNGER                                           | WENICLE<br>DATE DIP 11                                                         | 817E PRI<br>TIME DIF OTH               | VENDOR MANÉ<br>VENDOR PART NO                                                                                  |             |
| HYDRAULIC-A/B<br>BUSTAIHER/VERNIER                                                                               | FAR A-99-04-4103-C<br>SUSTAINER ACTUATOR ASSEMBLY                                                                                                                                                                                                                                                                                                                                                                                        | FAN<br>E7-85514-623                                                      | 10F FA                                                                         | FACTORY YES                            | YES INTERSTATE                                                                                                 | ••••        |
| FAILURE MODE-OUT OF TOLER<br>RESPECTIVELY. SPEC TOLERA<br>SPIBLE A TOLERANCE BUILDL<br>POSSIBLE TEST EQUIPMENT B | FAILURE MOSE-OUT OF TOLERANCE. B SERVOCYLINDER ASSY. REJECTED AT FACTORY FOR MIGH MULL READINGS OF 404HV AND 420HV<br>Respectivelt. Spec tolerance is plus 400 and-100HV. The reported pailures nere not confirmed by Lastesting. It is m<br>Spible a tolerance buildup of mull smift between the dipperent types of Bervoamps, the bervoamp output balance, and<br>Possible test equipment bias contributed to the reported Failure.    | D AT FACTORY FOR M<br>TED FALLURES WERE<br>IT TYPES OF BERVOAM           | IGH WULL REA<br>MOT CONTINE<br>PS, THE BERN                                    | LABIE OUTPU                            | WULL READINGS OF 404MV AND 420MV CONFIRMED BY LABTESTIMG. IT IS FO THE BEAVOANF OUTPUT BALANCE, AND            |             |
| CORRECTIVE ACTION-WODIFI                                                                                         | CORRECTIVE ACTION-MODIFICATION OF TEST EQUIPMENT PER TCP BIRT TERMINATED WHEN CONTRACE FOR SUCH ACTION EXPIRED FOR<br>AND F SERIES R AND D PROGRAMS.                                                                                                                                                                                                                                                                                     | TERNIMIED WICH                                                           | CONTRAGE FOR                                                                   | BUCH ACTI                              | N EXPIRED FOR                                                                                                  | •           |
| HTDRAULIC-A/B<br>BUSTAINER/VERNIER                                                                               | A-98-04-3371F<br>ACTIATOR ASSEMBLY, SERVO VALVE                                                                                                                                                                                                                                                                                                                                                                                          | FAR<br>R7-85514-885                                                      | 16F CQ<br>6£10£3 1E                                                            | COMPLEX YES                            | YES LIGHEL PACIFIC<br>NO                                                                                       | ••••        |
| FALLURE MODE-ERRATIC OFF<br>HYDRAULIC PRESSURE WAS A<br>CHTAMINATION OF THE DROPY<br>STON CAUDED BY POOR MACHI   | FAILURE MOSE-ERRATIC OPERATION. THE ACTUATOR ASSY MELD THE SUSTAINER ENGINE IN THE HARD OVER PLUS TAW POSITION WHEN<br>Hydrallic pressure has applied without such a command signal procaameed. The Pailure has confirmed. The cause has c<br>Ontamination of the dropping orffices of the seano value. The actuator bore has scored due to mealibrerat of the Pi<br>ston caused by poor medining (out of - Tolerance) of actuator body. | WATAINER ENGINE IN<br>PROGRAMMED. THE P.<br>S ACTUATOR BONE WAS IN BODY. | THE HARD ON<br>AILURE WAS CO                                                   | IR PLUS TA<br>DAFTENED.<br>TO MISALISE | FOSTION WENTHER FAST CAUSE NAS C                                                                               |             |
| CORRECTIVE ACTION-RAR-98 RESULSTED TO IMPROVE CLEA                                                               | CORRECTIVE ACTION-RAR-98-04-3831 MAS MRITTEN REQUESTING THAT THE VENDOR BE<br>RESULSTED TO IMPROVE CLEAKLINESS PROCEDURES DURING ASSEMBLY. LIONEL-PACIFIC<br>TON AND ADDED CAUTION NOTES TO THE NAMIFACTURING OUTLINE AND THE INSPECTION                                                                                                                                                                                                 |                                                                          | INFORMED OF THE FALLURE<br>IMPRECTED ALL ACTUATOR (<br>BEBUENCE FOR THIS PART. | FAILWE A                               | INFORMED OF THE FAILURE AMALIBIB AND BE<br>IMPRECTED ALL ACTUATOR BODIES IN PRODUCT<br>BEBLENCE FOR THIS PART. |             |
| HYDRAUL!C-A/B<br>BUBTAINER/VERNIER                                                                               | T-462-371-G-ESB9/P1-601-00-14<br>BUSTAINER HYDRAULIC PUMF, B-MUT                                                                                                                                                                                                                                                                                                                                                                         | COUNTDONN<br>E7-U8590-B                                                  | 146 11                                                                         | 11 YES                                 | YES VĮCKERS<br>ND AA-60410-L-2                                                                                 | 1           |
| FAILURE MOE-LEAR EXTERN<br>HIGH PRESSURE FLANGE OF                                                               | FAILURE MODE-LEAK EXTERNAL. THE LAUNCH COUNTDOMN WAS STOPPED FOR A 25 MINUTE MOLD TO REPAIR A HYDRAULIC LEAK AT THE<br>High pressure Flance of the Bustainer Hydraulic Pump. Leak has due to logge 8-muts.                                                                                                                                                                                                                               | FOR A 25 HINUTE H                                                        | OLD TO REPAI                                                                   | A MYDRAU                               | LIC LEAK AT THE                                                                                                |             |
| BYBIEN EFFECT-NOME. VEHICLE EFFECT-COUNTDOWN DELAYED. COM WIDOWN RESUMED AFTER LEAK WAS REFAIRED.                | BYBIEN EFFECT-MONE.<br>VENICLE EFFECT-COUNTDOWN DELAYED. COUNTDOWN WAS BTOPPED AT 1-45 MIN TO REPAIR MYDRAULIC LEAK ON BUSTAINER PUMP. COU<br>IDOMN RESUMED AFTER LEAK WAS REPAIRED.                                                                                                                                                                                                                                                     | i-45 HIN TO REPAIR                                                       | MYDRAULIC LE                                                                   | 14 ON BULT                             | AINER PUMP. COU                                                                                                |             |
| CORRECTIVE ACTION-THE B.                                                                                         | COARECTIVE ACTION-THE B-MUTS ON THE SU TAINER HYDRAULIC PUMP MERE RETORBUED AND DISPOSITIONED ACCEPTABLE FOR FLIGHT                                                                                                                                                                                                                                                                                                                      | · WERE RETORBUED AN                                                      | <b>B18POS</b> 1710                                                             | AED ACCEPT                             | ABLE FOR FLIBMT                                                                                                |             |
| HTDRAULIC-A/B<br>BUBTAINEA/VERNIER                                                                               | A-98-04-4054F<br>ACTUATOR ASSEMBLT: 9EAL                                                                                                                                                                                                                                                                                                                                                                                                 | FAR<br>27-05312-003                                                      | 14F C18                                                                        |                                        | TES LIGHEL PACIFIC                                                                                             | <del></del> |

PAILURE MODE-LEAR-EXTERNAL. THE BERVOCTLINDER LEAKED MYDRALLIC OIL.

GENERAL BYNAMICS CONVAIR BIVERION

; (

11 JUN 1966

# DIFFICULTIES REVIEW-HYDRAULIC SYSTEM-AIRBORNE

|                                                                                                   | DIFFICULTIES REVIEW-NYDRAULIC SYSTEM-AISOCHIE                                                                                                                                                                              | NULIC BYSTEN-AIRBOR                        | ¥                        |                  |                |                                                                      |                         |
|---------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|--------------------------|------------------|----------------|----------------------------------------------------------------------|-------------------------|
| 27.5 TEN<br>3UG-57.5 EN                                                                           | TEST/REPORT NUMBER<br>FAILED COMPONENT NAME                                                                                                                                                                                | DIF DATA BOURCE<br>PART NUMBER             | VEHICLE<br>DATE DIF      | BITE<br>TIME DIF | 9 n 1<br>N 10  | VENICLE BITE PRI VENDOR NAME<br>BATE BIF TINE BIF OTH VENDOR PART NO |                         |
| CORRECTIVE ACTION-NOME, PAILURE UNCONTRINED.                                                      | FAILURE UNCONFIRMED.                                                                                                                                                                                                       |                                            |                          |                  |                |                                                                      | 87.878                  |
| HTDRAULIC-A/B<br>BUSTAINER/VERNIER                                                                | A-JA-04-3324-C<br>SERVO VALVE                                                                                                                                                                                              | FAR<br>27-04206-1                          | <b>66</b> 1008           | BAN DIEG         | <b>2</b> 0     | SAN BIEG YES CADILLAC GAGE<br>O NO CO.<br>FC-E7-396A                 | :                       |
| FAILURE MODE-OUT OF TOLES ED PRIOR TO FAILURE ANALYS CORRECTIVE ACTION-NOME.                      | FAILURE MODE-OUT OF TOLERANCE-THE BLIDING VALUE WAS STICKING AT BOTH ENDS OF 178 TRAVEL. THE BERNO VALVE WAS SCRAPP  D PRIOR TO FAILURE AMALYSIS, THEREFORE PAILURE AMALYSIS WAS CANCELLED.  CORRECTIVE ACTION-MOME.       | 6 AT BOTH ENDS OF 11<br>CANCELLED.         | 10 TRANEL.               | 36<br>28         | \$<br><b>9</b> | LVE MAS SCRAPP                                                       |                         |
| MYDRAULIC-A/B<br>BUSTAINER/VERNIER                                                                | 3P-90-04-4, )7/<br>ACTUATOR A39598LY, O-RING                                                                                                                                                                               | FAR<br>27-05314-010                        | 1200<br>621001           | 85               | 20             | YES LIGHAL PACIFIC                                                   | <b>39</b> 27 5 <b>8</b> |
| FAILURE MODE-LEAK EXTERNAL. THE SERVO CYLINDER<br>RIAL IS TOO HARD TO GIVE A GOOD HYDRAULIC BEAL. | FAILURE MODE-LEAK ENTERNAL. THE SERVO CYLINDER LEAKED MYDRALLIC OIL. CONFIRMED AT 3 DAGPS PER MOUR. THE O-RING MATE                                                                                                        | LIC OIL. COPTINED                          | AT 3 CACO                | <u>\$</u>        | Š              | HE O-RING MATE                                                       |                         |
| HYDRAUL IC-A/B SUSTAINER/VERNIER                                                                  | A-98-04-4033F<br>Actuator AssD@LY, 9EAL                                                                                                                                                                                    | FAR<br>27-05311-007                        | 10gF                     | E 44             | 5 5            | TES LICHEL-PACIFIC                                                   |                         |
| FAILURE MODE-LEAR EXTERN CORRECTIVE ACTION-RAR A-                                                 | FAILURE MODE-LEAK EXTERNAL. THE BERVO CYLINDER LEAKED HYDRAULIC OIL. O-1116 FOUND TO BE OF BUB BUALITY.<br>Corrective action-rar a-89-04-3660 and Wear 3430-63 has written. Wendor Will Make Closer inspection of O-Rings. | LLIC 01L. O-1116 FO<br>TTEN. VENDOR MILL N | AND TO BK                | OF BUB .         | SAL 17         | ۲.<br>۳ 0-1146                                                       |                         |
| HYDRAULIC-A/B<br>BUSTAINER/VERNIER                                                                | A-90-04-4014F<br>ACTUATOR ABBEMBLY                                                                                                                                                                                         | FAR<br>87-05354-057                        | <b>640988</b>            | 08 TF 1          | 5 8            | YES LIGHEL PACIFIC 887124                                            | ******                  |
| FAILURE MODE-LEAR EXTERN<br>IM68, PISTOM, AND ACTUATO                                             | FAILURE MODE-LEAK EXTERNAL. THE COMPONENT WAS REJECTED FOR LEAKAGE AT OBTF 1. FAILURE ANALYBIB BHOMED DAMMGE TO O-R<br>Ings, Pistom, and actuator body. The Failure was attributed to bhifting of the Piston Retainers.    | LEAKAGE AT ONT 1.<br>TO SHIFTING OF THE    | PATLURE AN<br>PERTON MET | ALYBIB B         |                | DAMAG 10 0-R                                                         |                         |
| CORRECTIVE ACTION-O-RING                                                                          | CORRECTIVE ACTION-O-RING GLAND AND PISTON RETAINERS WERE RETORGUED, ALIGHED AND LOCK WIRED IN POSITION AFTER PROOF                                                                                                         | TORBUED, ALIGNED AN                        | D LOCK WIT               | IED 114 PO       | <b>4</b> 1716  | M AFTER PROOF                                                        |                         |

GENERAL DYNAMICS CONVAIR DIVISION

10 1UM 106

|                                                                              | מונגורות שלגות-אומשערול פנפודת-אושפתעת                                                                                                                                                                                                                                                                                                       | DRAULIC STRIEM-AIRBON                                                            |                        |                        |                        |                                                                   | _                                       |
|------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|------------------------|------------------------|------------------------|-------------------------------------------------------------------|-----------------------------------------|
| BYSTEM<br>BUG-BYSTEM                                                         | TENTANTPONT NUMBER<br>FAILED COMPONENT NAME                                                                                                                                                                                                                                                                                                  | DIF DATA BOUNCE<br>PART NUMBER                                                   | VEHICLE<br>DATE DIF    | 817E<br>71ME 01P       | PAI VEN                | VEHICLE BITE PAI VENDOR MANE DATE DIF TIME DIF OTH VENDOR PART NO | <del></del>                             |
| HYDRAULIC-A/B<br>BUSTAINES/VERNIER                                           | AOJEE-DOAT<br>TRANSDUCER                                                                                                                                                                                                                                                                                                                     | FLIBAT                                                                           | 016030                 | 11                     | 22                     |                                                                   | •                                       |
| FAILURE MOCE-OUT OF TO<br>IN DURATION TO \$40 PBI<br>B CAUSE OF HIGH PRESS P | FAILUKE HOGG-OUT OF TOLERANCE, HIBBP AT BUBTAINER HYDRAULIC PUMP INLET RECORDED TWO PREBBURE SPIRES, EACH 0.055 BEC<br>In Dukation to 540 psi6, and to ree Psi6, it is believed that bimultaneous closing of HB, Pu and 66 valves at BCO I<br>. Cause of High press from sus engine hyd. Control namifold entering return Line to Hyd, Pump. | IC PUMP IMLET RECORDE<br>THAT BIMULTANEOUB CLO<br>D'ENTERING RETURN LIN          | D TWO PRE-             | BAURE BPT              | 66 VALW                | H 0.035 SEC                                                       |                                         |
| SYSTEM EFFECT-NONE.                                                          |                                                                                                                                                                                                                                                                                                                                              |                                                                                  |                        |                        |                        |                                                                   |                                         |
| VEHICLE EFFECT-NOME.                                                         |                                                                                                                                                                                                                                                                                                                                              |                                                                                  |                        |                        |                        |                                                                   |                                         |
| CORRECTIVE ACTION-NOME.                                                      | ú                                                                                                                                                                                                                                                                                                                                            |                                                                                  | ţ                      |                        |                        |                                                                   |                                         |
| HYDRAULIC-A/B<br>SUSTAINE9/VERNIER                                           | A-JA-04-3522-F<br>ACTUATOR                                                                                                                                                                                                                                                                                                                   | FAR<br>27-06963-5                                                                | 116029                 | PACTORY                | NO 1NTERS<br>NO 2725-1 | INTERSTATE<br>2725-1                                              | 997210                                  |
| FAILURE MODE-OUT OF TO<br>TOLERANCE IN RETRACT A<br>OVED BY SUPPORT CENTER   | IT OF TOLERANIE, FOLLOWING REPAIR OF UNIT AT PRODUCT SUPPORT CENTER (PLT. 2) PISTON STROKE WAS OUT OF TRACT AND EXTENDED POSITIONS. UNCOPTINED. PAILURE ATTRIBUTED TO INPROPER MEASUREMENT TECHNISUE EMPLECATION GROUP.                                                                                                                      | T PRODUCT SUPPORT CENTED T                                                       | TER (P.T.              | E) PISTO               | N BIROKE               | INS OUT OF                                                        |                                         |
| CORRECTIVE ACTION-HOME.                                                      | E. DEPUT ADVISED OF CORRECT MEASUREMLNT METHODS.                                                                                                                                                                                                                                                                                             | LNT HETHODS.                                                                     |                        |                        |                        |                                                                   | · <del></del>                           |
| HTDRAUE IC-A/D<br>BUSTATNER/VERNIER                                          | A-60-04-401EF<br>ACTUATOR ABBERGLY, PLOTON                                                                                                                                                                                                                                                                                                   | FAR<br>F7-65314-621                                                              | 65E<br>620911          | A 124                  | 763 LIG<br>NO          | YES LICHEL PARIFIE                                                | *************************************** |
| FAILVAE MODE-LEAA EXTE<br>REFEALED DAMAGE TO G-R<br>PLBTON RETAINERB.        | FAILUME MODE-LEAR EXIGAMAL. THE COMPONENT WAS REJECTED FOR LEARACE AT PORTY PBIS. FAILURE AMALYBIS OF THE COMPONENT<br>Reyealed damage to o-rings, piston mod, and feed back transducer, the Pailure was attributed to misalighment of the<br>Piston altainers.                                                                              | R LEARACE AT PORTY PO<br>NODUCER, THE FAILURE                                    | MAD ATTRE              | RE AMELYS              | 18 OF TH<br>HISALIGH   | E COMPOSENT<br>MENT OF THE                                        |                                         |
| CONSECTIVE ACTION-O-BI                                                       | ON-O-RING GLAND AND PISTON RETAINERS ARE NOW RETORGUED, ALIGNED AND LOCKNIRED IN POSITION AFTER PROD                                                                                                                                                                                                                                         | OM RETORAUED, ALIENED                                                            | AND LOCK               | 2 S                    | PO8 2 11 GR            | AFIER PROD                                                        |                                         |
| HTDRAULIC-A/B<br>BUBTAINER/YERMICR                                           | A-99-04-4047F<br>ACTUATOR ABBENGLY, BERNO VALUE                                                                                                                                                                                                                                                                                              | FAR<br>R7-88814-817                                                              | 83-F                   | FACTORY                | 768 LIO                | YES LIGHTL PACIFIC                                                | ***                                     |
| FAILURE MODE-OUT OF TO<br>F MISSILE, THE FAILURE                             | PAILUME MODE-OUT OF TO ERANCE, ACTUATOR WAS REJECTED WHEN MULL WAS OUT OFSPECIFICATION DURING MAPCHE CHECKOUT OF PAISILE. THE PAILUME WAS ATTRIBUTED TO LODGENESS IN WALL ADJUSTMENT LIMMAGE IN THE SERVO VALVE.                                                                                                                             | MULL MAN OUT OFSPECIFICATION DURING MA<br>ADJUSTMENT LIMEAGE IN THE SERVO VALVE. | FICATION<br>IN THE BER | DURING MA<br>VO VALVE. | PCHE CHE               | CROWT OF 83                                                       | ,                                       |

COARECTIVE ACTION-CADILLAC SASE IMPROVED TORGUE-MOTOR ASSEMBLY PROCEDURES.

GENERAL DYNAHICS CONVAIR BIVISION

118 JUN 11866

|                                               |                                             | •                                              | -                                                                                                                                                                                                                        | ····                                                      |                                                                    | VES LICHEL PACIFIC DOSTOR                    | <b>.</b>                                                                                                                                                                                  | <del></del>                                                                                     | 1300                                |                                                                                                           |                                                  |                                             |                                                                                                                                                                                |
|-----------------------------------------------|---------------------------------------------|------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|--------------------------------------------------------------------|----------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|-------------------------------------|-----------------------------------------------------------------------------------------------------------|--------------------------------------------------|---------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                               | # 1 m                                       |                                                | 9                                                                                                                                                                                                                        |                                                           |                                                                    | ACIPI                                        | 000                                                                                                                                                                                       |                                                                                                 |                                     |                                                                                                           |                                                  | PACIFIC                                     | ANALY                                                                                                                                                                          |
|                                               | VENDOR HANG                                 | TES CRESENT<br>NO                              | 3 3 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5                                                                                                                                                                                  |                                                           |                                                                    | 13061                                        | CLEB 900                                                                                                                                                                                  |                                                                                                 | VES PEACOCH<br>NO 51305-3           | ior.                                                                                                      |                                                  | PLATTSOU VES LIGHEL PACIFIC                 | PAILURE                                                                                                                                                                        |
|                                               | 0 P                                         | Şg                                             | . 1                                                                                                                                                                                                                      |                                                           |                                                                    | <b>4</b> 8                                   | 5<br>5                                                                                                                                                                                    |                                                                                                 | ì                                   | רנט ז                                                                                                     |                                                  | <b>5</b> 9                                  | 5                                                                                                                                                                              |
|                                               | VEHICLE BITE PAT VEHOOR HAME                | 11<br>-100c                                    | CIRCUITRY<br>ER RESET                                                                                                                                                                                                    |                                                           |                                                                    | 5                                            | 36 994 55<br>55                                                                                                                                                                           | MALYBIB.                                                                                        | BYCANDRE                            | HE HYDRAU                                                                                                 |                                                  | P.ATT380<br>86                              | 704 CYLIN                                                                                                                                                                      |
| ¥                                             | VEHICLE<br>DATE DIF                         | 8f<br>8£0907                                   | T PROSAME                                                                                                                                                                                                                |                                                           |                                                                    | <b>66</b> 0 <b>63</b> 3                      | INE CYLIND                                                                                                                                                                                | O OF THE A                                                                                      | ******                              | TAL 1870 T                                                                                                |                                                  | 929038<br>474                               | THE ACTUA                                                                                                                                                                      |
| AULIC BYBIEN-AIRBO                            | DIF DATA SOURCE<br>PART NUMBER              | COMPOSITE-B FACT                               | T IN VI PEEDBACK TI<br>ATIVE PITCH BTOP AT                                                                                                                                                                               |                                                           | CUITAY.                                                            | FAR<br>E7-6531E-605                          | IS ESTIMATED THAT TICLES.                                                                                                                                                                 | SCHOEL NERE ADVISES                                                                             | FAR<br>E7-06553-3                   | ME PISTON O-RING M                                                                                        |                                                  | FAR<br>E7-09314-017                         | EEN BERVOVALVE AND                                                                                                                                                             |
| DIFFICULTIES REVIEW-HYDRAULIC SYSTEM-AIRBORNE | TEST/REPORT NUMBER<br>FAILED COMPONENT MANE | PI-6CO-01-08<br>FEEDBACK TRANSDUCER, CIRCUITRY | FAILURE MODE-ELECTRICAL OPEN. BPLICES BROKEN BURING CAP IEST IN VI PEEDBACK TRANSBUCER CIRCUITRY.<br>Bybiem effect-erratic operation. Vernier engine ment to negative pitch biop at programmer reset buring the cap iest | WEMICLE EFFECT-COMPOSITE DELAYED, MOLD TINE INDETERMENTE. | CORRECTIVE ACTION-REPAIRED BROKEN SPLICES AND RECHECKED CIRCUITAY. | HE-98-04-3413-F<br>VERNIER ACTUATOR ASSENDLY | FAILURE MODE-LEAK, EXTERNAL, WORN PISTON O-KING LEAKED. IT IS ESTIMATED THAT THE CYLINDER MAD BEEN CYCLED SODIOOD ?<br>IMES DURING SO.1 HOURS OF OPERATION. DESIGN LIFE IS SOIDOD CYCLES. | CORRECTIVE ACTION-NOME, CYLINDER HAD EXCESSIVE UMA. ETR PERSONNEL MERE ADVISED OF THE AMALTRIS. | A-64-10-133F<br>ACCUMULATOR, O-RING | FAILURE MODE-LEAK-INTERNAL-643 PRECHARGE MAS LEAKING PAST THE PISTON O-RING BEAL INTO THE HYDRAULIC SIDE. | CORRECTIVE ACTION-UNKNOWN. FAILURE NOT CONTINED. | A-8P-D4-3448-F<br>ACTUATOR ASSENSAT, O-RING | FAILUME MODE-LEAK. THE BERWOCYLINDER HAS FOLAD LEAKING BETHEEN SEAVOVALVE AND THE ACTUATOR CYLINDER. FAILUME ANALYS<br>IS FOUND THAT ONE FLOW FORT SEALING O-RING HAS MISSING. |
| 9961 NOT 81                                   | 3731EN<br>848-878                           | HYDRAULIC-A/B<br>Bustainer/Verijer             | FAILURE MODE-ELECTRICAL SYSTEM EFFECT-ERRATIC OF                                                                                                                                                                         | VEHICLE EFFECT-COMPOSITE                                  | CORRECTIVE ACTION-REPAIR                                           | HYDRAULIC-A/B<br>Bustainer/Vernier           | FAILURE MODE-LEAK, EXTER<br>INES DURING 80.1 MOURS OF                                                                                                                                     | CORRECTIVE ACTION-MOME.                                                                         | HYDRAUL IC-A/B<br>BUSTAINER/VEKNIER | FAILURE MODE-LEAK-INTERN                                                                                  | CORRECTIVE ACTION-UNKNOW                         | HYDRAULIC-A/B<br>BUSTAINER/VERNIER          | FAILURE MODE-LEAR. THE B                                                                                                                                                       |

CORRECTIVE ACTION-PRODUCTION AND INSPECTION PERSONNEL CAUTIONED TO USE CARE INEN MATTING BERYDVALVE TO THE ACTUATOR

9941 NOT 91

|            | DI AI BION |
|------------|------------|
| THE REPORT | CONVAIR    |
|            |            |

|                                                                              | DIFFICULTIES REVIEW-MYDRAULIC SYSTEM-AIRBORNE                                                                                                                                                                                                                                                                              | IAULIC BYSTEN-AIRBOR                                                | ¥                                |             |                           |                                                    |               |
|------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|----------------------------------|-------------|---------------------------|----------------------------------------------------|---------------|
| 8781EN<br>808-8781EN                                                         | TEST/REPORT NUMBER<br>FAILED COMPOMENT NAME                                                                                                                                                                                                                                                                                | DIF DATA SOURCE<br>PART NUMBER                                      | WHICLE<br>DATE DIP               | 817E        | PRI V.                    | WENICLE BITE PRI VENOM NAME DATE BIT VENOM PART NO | ſ <del></del> |
| HTDRALLIC-A/B<br>Bustaingr/Vernier                                           | A-BL-10-140F<br>HTDRAULIC PUMP, O-RING                                                                                                                                                                                                                                                                                     | FAN<br>87-0880-8                                                    | 020020                           | LINCOLN     | VEB VICKERS<br>NO AA-6041 | VICKERS<br>AA-6041G-L-B                            |               |
| FAILUME MODE-LEAM-ENTER<br>8.                                                | FAILUME MODE-LEAR-EXTERMUL, HYDRAULIC OIL LEARAGE AT THE IMLET AND OUTLET PLAMEES UMS CAUGED BY POOR GUALITY O-AIMS                                                                                                                                                                                                        | RET AND CUTLET PLAN                                                 | ES MS CA                         | T A G G T A | 3<br>8<br>8               | LITT O-RIM                                         |               |
| CORRECTIVE ACTION-CONVA                                                      | COARECTIVE ACTION-CONVAIR REQUEDTED THE VENDOR TO USE O-RIMS THAT MEET MIL-8-29732. THE VENDOR IS ALSO SUBJECTIMS THESE ORIGINE ACTION-CONVAIR REGUEST.                                                                                                                                                                    | 453 THAT HEET MIL-E-<br>EASE, VENDOR COMPLI                         | 1373E. THE<br>50 WITH 60         | VENDOR 1    | . AL BO                   | 8UB JECT 1106                                      |               |
| HTD4AULIC-A/B<br>Bustaineq/Vernier                                           | A-98-04-3401C<br>ACTUATOR ABSEMBLY                                                                                                                                                                                                                                                                                         | FAR<br>27-05314-017                                                 | +10030                           | Ĕ           | 3 B                       | LIONEL PACIFIC                                     | 097720        |
| FAILURE MODE-ERRATIC CP                                                      | FAILURE MODE-ERRATIC CPERATION. REPORTED TO BE CPERATING EMATICALLY. NO PAILURE ANALYSIS PERFORMED.                                                                                                                                                                                                                        | MATICALLT. NO PAILU                                                 | RE AMALYBIO                      | PERFORM     | ś                         |                                                    | ·             |
| CORRECTIVE ACTION-NO AN                                                      | CORRECTIVE ACTION-NO AMALYSIS MAS PERFORMED. THE PART MAS REJECTED IN ERROR AND THEREFORE THE AMALYSIS WAS CAMCELED                                                                                                                                                                                                        | EJECTED IN EAROR AN                                                 | D THEREPORE                      | E THE ANN   | LY859 1                   | MS CANCELED                                        |               |
| HYDRAUL I C-A/B<br>BUSTAINER/VERNIER                                         | A-98-04-3401-C<br>ACTUATOR ASSEMBLY                                                                                                                                                                                                                                                                                        | FAR<br>E7-05314-017                                                 | <b>*1003</b>                     | CIA         | 75 C.C.                   | NES LIGHEL PACIFIC                                 | 3             |
| FAILURE MODE-ERRATIC OF                                                      | FAILURE HODE-ERRATIC OPERATION. BERVOCYLINDER ACTUATOR UND REPORTED OPERATING EMRATICALLY.                                                                                                                                                                                                                                 | AEPONTED OPERATING                                                  | EMATICALL.                       | ż           |                           |                                                    |               |
| CORRECTIVE ACTION-NOME.                                                      | CORRECTIVE ACTION-HOME. PART MAS NOT AMALTZED.                                                                                                                                                                                                                                                                             |                                                                     |                                  |             |                           |                                                    |               |
| MTDRAULIC-A/B<br>BUBTAINER/VERNIER                                           | A-BL-10-130F<br>HYDRAULIC TAME                                                                                                                                                                                                                                                                                             | FAR<br>27-06552-5                                                   | <b>620613</b>                    | LINCOLN     | 768 BC                    | YES BENBOW HFG                                     |               |
| FAILURE MODE-STRUCTURAL<br>W PRESSURE (60-120PS16)                           | FAILURE MODE-STRUCTURAL. THE MYDRAULIC END OF THE TAME BLEM OFF. FAILURE MAS CAUSED BY OVERPRESSURIZATION OF THE LO<br>W Pressure (60-120Psig) side of the sustainer mydraulic system.                                                                                                                                     | d OFF. FAILURE WAS C                                                | AUSED BY O                       | VERPRESS.   | ) 1 42 I M                | 34 OF THE LO                                       |               |
| CORRECTIVE ACTION-PERSC<br>DIMER COMPONENTS IN THE<br>PUBLICATIONS TO INSURE | COMMECTIVE ACTION-PERSONNEL AT LINCOLM AIR FONCE BANE NERE HOTIFIED OF THE CAUSE OF FAILURE, ALSO MEME ADVISED THAT OFFICE COMPONENTS IN THE HIDRAULIC RETURN STREW MEME EXPOSED TO THE SEVERE OVERPRESSURIZATION ALSO NOTIFIED SUPPORT PUBLICATIONS TO INSURE COMPATIBILITY WITH APPLICABLE OPERATIONAL TECHNICAL ORDERS. | NOTIFIED OF THE CAU<br>ED TO THE BEYERE ONE<br>TIONAL TECHNICAL OND | SE OF FAIL<br>RPRESSURIZ<br>ERL. | UNE. ALBO   | S MERE<br>S HOTE          | ADVISED THAT                                       |               |

GENERAL BYNAMICS CONVAIR BEVISION

The second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of th

A Street A

38

13 1UN 1864

|                                          | •                                        |                                                                                                                                                                                                                                                                                           | ***                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                               | •                                                       |                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|------------------------------------------|------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| VEHICLE BITE PRI VENDOR MANE             | CLEMCALERO PRC 805544<br>DUCTS<br>2792-2 | LE CHECKOUT OF<br>HAD BEEN REHOT                                                                                                                                                                                                                                                          | IN MICH THE VASSEMBLE VERNI                                                                                                                                                                                                                                                                                                                                            | AA-60410-L-8                                                                                                                                                  | WE LIGHEL-PACIFIC                                       | ARAGE REPORTES<br>UNE. THE LEAK!<br>ROUGH FINISH                                                                                                                                                                                                                                                                                                                                                       | PUNCLATOR OF THE                                                                                                                                                                                                                                                                                                                                                                                                                  |
| BITE PRI                                 | WALKER YES                               | DURING NEBSI                                                                                                                                                                                                                                                                              | ME CONDITION IN WHICH ED NOT TO DISABSEMBLE SOUTH TES VICKERS                                                                                                                                                                                                                                                                                                          | _                                                                                                                                                             | FACTORY VES I                                           | CKOUT. THE LE<br>RHED THE FAIL<br>G CAUBED BY A                                                                                                                                                                                                                                                                                                                                                        | SIFIED HIS IN<br>SCANNE YES<br>OR NO O                                                                                                                                                                                                                                                                                                                                                                                            |
|                                          | 90£<br>6£0903                            | TRNINED RATE<br>) THE PEEDBACI                                                                                                                                                                                                                                                            | MERE REGUEST                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                               | 30e036                                                  | F HISSILE CHE<br>MLTSIS CONTI<br>MANDED O RIM                                                                                                                                                                                                                                                                                                                                                          | VENDOR INTER<br>NO DURING AS.<br>75F<br>8E0721                                                                                                                                                                                                                                                                                                                                                                                    |
| DIF DATA SOURCE<br>PART NUMBER           | FAR<br>E7-G8578-8                        | LEAKED AT AN UNDE!<br>THE BERYOVALVE AND                                                                                                                                                                                                                                                  | D PERSONNEL AT MAI. FIELD PERSONNEL MALTSIS. FAR                                                                                                                                                                                                                                                                                                                       | E7-06860-3<br>.IC PLUID EXTERNALL                                                                                                                             | FAR<br>27-65512-605                                     | DIBLY LEAKED DURING<br>OF 118 TRAVEL. AN<br>DUE TO WORN AND A                                                                                                                                                                                                                                                                                                                                          | FAR ET-DASE, THE FAR AND POLISHING, J. FAR ET-DASE4-801                                                                                                                                                                                                                                                                                                                                                                           |
| TEST/REPORT NUMBER PAILED COMPONENT NAME | A-04-3503F<br>ACTUATOR                   | FAILURE MODE-LEAR-EXTERNAL-THE VERNIER HYDRAULIC ACTUATOR LEARED AT AN UNDETERNINED RATE DURING HISSILE CHECKOUT OP<br>Eratioms. The reported failure was not confirmed, homever, the bervoyalve and the predback transducer had been benow<br>E prior to submittal for failure analysis. | CORECTIVE ACTION-NO CORRECTIVE ACTION, 60/C INFORMED PIELD PERSONNEL AT MALKER AFB OF THE CONDITION IN MICH THE VERNIER HYDRAULIC ACTUATOR WAS RECEIVED FOR FAILURE ANALYSIS. FIELD PERSONNEL MERE RESUESTED NOT TO DISASSENSELE VERNIER SERVOLVILINGER ASSENSELES BEFORE SUBMISSION FOR FAILURE ANALYSIS.  PRAKALIC-A/D  A-8H-10-126F  FAR  17F  BCHILLIN YES VICKERS | STAINGANTYLKHIER HYDRAULIC PURP EST-OBSO-S GEOGGE G MO<br>Failume Mode-Lear-Extermal. Purp was found learing hydraulic Pluid Extermally at several locations. | A-98-G4-3543F<br>ACTUATOR ASSEMBLY, O-RING              | FAILURE MODE-LEAK(EXTERMAL)-THE VERHIER SERVOCYLINDER ASSEMBLY LEAKED DURING MISSILE CHECKOUT. THE LEAKAGE REPORTED T OCCURED AT 50 PSIG MITH THE SERVOCYLINDER AT AN EXTREME OF 118 TRANEL. ANALYSIS CONTINUED THE FAILURE. THE LEAKA E RATE WAS 20 DROPS PER MINUTE AT 50 PSIG. THE LEAKAGE WAS DUE TO WORM AND ABRADED O RING CAUSED BY A ROUGH FINISH F ACTUATOR CYLINDER BORE (RMS 40 IN PLACES). | CONTECTIVE ACTION-THE VENDOR WAS NOTIFIED OF THE FAILURE AND FOLISHING, AND DURING ASSEMBLY.  CALINGER BORE AFTER PREPARATION FOR PLATING, AFTER PLATING AND POLISHING, AND DURING ASSEMBLY.  DRAULIC-A/B  A-80-10-131-F  HYDRAULIC FILTER, PLANSE  RT-00564-BOI WEBTER OR HARRED JOHNT BURFACE BUE TO MISS  FAILURE HODE-LEAK EXTERNAL, HYDRAULIC OIL LEARAGE AT THE BODY JOHNT WAS CAUSED BY A MARRED JOHNT BURFACE BUE TO MISS |
| 878763<br>808-8755                       | MYDRAULIC-A/B<br>Bustainer/Verhier       | FAILURE MODE-LEAR-EXTERNAL-THE VERNIER HY<br>ERATIONS. THE REPORTED FAILURE MAS NOT CON<br>E PATOR TO SUBMITTAL FOR FAILURE ANALYSIS.                                                                                                                                                     | CORRECTIVE ACTION-NO CONTRECTIVE ACTION-NO CONTRECTIVE ACTION ASSENDED HYDRALLIC-A/D                                                                                                                                                                                                                                                                                   | SUSTAINER/VERNIER FAILURE MODE-LEAK-EXTERI                                                                                                                    | CORRECTIVE ACTION-MOME. HYDRAULIC-A/B BUSTAINER/YERNIER | FAILURE MODE-LEAKIENTER LY OCCURRED AT 50 P316 W GE RATE WAS 20 DROPS PER OF ACTUATOR CYLINDER BOR                                                                                                                                                                                                                                                                                                     | CORRECTIVE ACTION-THE W E CYLINGER BORE AFTER PRI HYDRALLIC-A/B BUBTAINER/VERNIER FAILURE MODE-LEAK ENTER                                                                                                                                                                                                                                                                                                                         |

COMPECTIVE ACTION-AM AVO BENT TO BULLITY CONTAGE ADVIBING LEAR UMB CAUBED BY HIBMANDLING AT ABBEMBLY, BO/C INCREASE D BURYEILLANCE ON COMPONENT AND CARE MAD TAKEN TO PRECLUDE MIBMANDLING OF UNITS.

SENERAL DYNAMICS CONVAIR DIVISION

11 104 1986

|                                               |                                                     | ***************************************          |                                                                                                                                                |                                                                                                                      |                                    |                                                                                                                                                                                                            |                         | • • • • • • • • • • • • • • • • • • • • |                                                                                                                     |                                                                                                                                                                                                                                      |                                            |                                                                                                                                                                                                    |
|-----------------------------------------------|-----------------------------------------------------|--------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|-----------------------------------------|---------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                               | BITE PRI VENDOR NAME<br>TINE BIP OTH VENDOR PART NO | TER CONTAIR                                      | ARES WERE RESP                                                                                                                                 | ABING TO PRODU                                                                                                       | TES LIGHEL PACIFIC COSSOT          | CANCELLED BECA                                                                                                                                                                                             |                         | #-7-0                                   | Trice mention.                                                                                                      | IING UNITS TO B                                                                                                                                                                                                                      | NO LICHEL-PACIFIC 007040                   | LAKASE MONEWER                                                                                                                                                                                     |
|                                               | P#1<br>01#                                          | ភ្នំ ទី                                          | ¥                                                                                                                                              | 3                                                                                                                    | ÷ 0                                | i                                                                                                                                                                                                          |                         | ž č                                     | 3                                                                                                                   | S AC                                                                                                                                                                                                                                 | <b>5</b> 8                                 | z<br>E                                                                                                                                                                                             |
|                                               | 117E<br>713E DIF                                    | £ .                                              | MENE ON 1                                                                                                                                      | AE BEFORE                                                                                                            | 2                                  | . AMALYBIS                                                                                                                                                                                                 |                         | SCHILLIN VES VICKERS<br>6 NO AA-60410   | 1 terror 80                                                                                                         | # 1962 A                                                                                                                                                                                                                             | <b>E</b> TA                                | HOT VEAL                                                                                                                                                                                           |
| ¥                                             | WENICLE<br>DATE DI'                                 | 97¢<br>6£0731                                    |                                                                                                                                                | II BHED FLA                                                                                                          | 1136                               | AFB.                                                                                                                                                                                                       |                         | <b>6£</b> 0730                          | 14 A GO 84                                                                                                          | CTIVE FEB.<br>LEAKAGE PE                                                                                                                                                                                                             | 77<br>620718                               | 01600 0110                                                                                                                                                                                         |
| AULIC BYGYEN-AIRBO                            | DIF DATA SOURCE<br>PART NUMBER                      | FAR<br>87-85107-142                              | TUBING PLANE. TOOL!                                                                                                                            | APECTION OF THE PIN                                                                                                  | FAR<br>27-65512-605                | D HTDRAULIC OIL. TH<br>MEPAINED AT MALKEN                                                                                                                                                                  |                         | FAR<br>R7-06390-3                       | L LOCATIONS MR CAI                                                                                                  | S MAN NEVINED EFFE                                                                                                                                                                                                                   | FAR<br>E1-65518-905                        | CC. TESTING AT BAN<br>IBUTED TO O-RING.                                                                                                                                                            |
| DIFFICULTIES REVIEW-HUBRAULIC SYCTEM-AIRBORNE | TESTARPORT NUMBER FAILED CONTOMENT NAME             | A-80-10-121F<br>HYDRAULIC TUBE ASSEMBLY, FITTING | FAILURE MODE-LEAK-EXTERNAL, MYDRAULIC GIL LEARAGE PROM THE TUBING FLARE. TOOLING NAMED MERE ON THE PLARES MERE RESP<br>Msible For the Learage. | CORRECTIVE ACTION-QUALITY CONTROL INITIATED A MORE RIGID INSPECTION OF THE PINISHED FLARE BEFORE RELEASING TO PRODU- | A-BR-D4-35E3C<br>ACTUATOR ASSENDLY | FAILUKE MODE-LEAK-EXTERMAL-THE VERNIER BERVO CYLINCER LEARED HYDRAULIC OIL. THE FAILUME AMALYBIB MAB CAMCELLED BECA<br>Ube the actuator was mot bent in for amalybib. The part has mepaired at valken afb. |                         | A-8H-10-127F<br>PUMP, O-RING            | FAILUNE MODE-LEAR-EXTERMAL. MYDRAULIC OIL LEARAGE AT BEYERAL LOCATIONS UNS CAUSED BY BLISMYLY ROUGH TEFLON GASAETS. | CORRECTIVE ACTION-RECEIVING INSPECTION PROCEDURE 27-6C-10033 WAS REVISED EFFECTIVE FEB. 8 1962 REQUIRING UNITS TO<br>E PRESSURIZED TO 80 PSIG WITH INLET AND OUTLET PORTS PLUGGED FOR 24 HOURS. NO LEAKAGE PERMITTED FOR ACCEPTANCE. | A-88-04-4040F<br>ACTUATOR ASSEMBLY, G-RIMS | PAILUME MODE-LEAK EXTERME. ACTUATOR WAS REJECTED FOR LEAKAGE. TESTING AT SAM DIEGO DID NOT WEATFY LEAKAGE MOMENER<br>O-RIMG MAS FOUND TO DE OF INFERIOR GUALITY, PAILUME WAS ATTRIBUTED TO O-RIMG. |
| ### NOT #1                                    | 8781EN<br>808-573TEN                                | HYDRAULIC-A/B<br>BUBTAINCR/VERNIER               | FAILURE MODE-LEAK-EXTER<br>ONSIBLE FOR THE LEAKAGE.                                                                                            | CORRECTIVE ACTION-BUAL!                                                                                              | HYDRAULIC-A/B<br>BUTTAINER/VERNIER | FAILURE MODE-LEAK-EXTER<br>USE THE ACTUATOR MAS MOT                                                                                                                                                        | CORRECTIVE ACTION-NOME. | HYDRAULIC-A/B<br>Bustaine e/Vermier     | FAILURE MODE-LEAR-EX!ER                                                                                             | CORRECTIVE ACTION-RECEI                                                                                                                                                                                                              | HYDRAUL, C-A/B<br>BUSTAING R/VERNIER       | FAILURE MODE-LEAR EXTER                                                                                                                                                                            |

CORRECTIVE ACTION-LIONEL PACIFIC TIGHTENED INSPECTION OF O-RINGS.

「「おくれい」となる。 おきしからましかい いこともら おもっち でんしつ

A . 4 20.00 1

| CENERAL DYNAMICS | CONVAIR BIVIBION |  |
|------------------|------------------|--|
|                  |                  |  |

15 JUN 1986

DIFFICULTIES REVIEW-HYDRAULIC SYSTEM-AIRBORNE

| - en e                              | BYBTEN<br>BUB-BYBTEN                                        | TEST-REPORT NUMBER<br>PAILED COMPONENT NAME                                                                                                                                                                                                                                       | DIF DATA BOURCE<br>PART NUMBER             | WEHICLE<br>DATE DIF      | VEHICLE BITE<br>DATE DIF TIME DIF | # 5<br>6 | VENDOR HANE             | VENDOR NAME<br>VENDOR PLAT NO |        |
|-------------------------------------|-------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|--------------------------|-----------------------------------|----------|-------------------------|-------------------------------|--------|
| HYDRAULIC-A/B<br>RUSTAINER/VERNIER  | /D<br>Eanigr                                                | AERE-OGUS/BI-401-00-18<br>HTDRAULIC PUMP                                                                                                                                                                                                                                          | FL16HT<br>27-06560-3                       | 420<br>620718            | =-                                | 2 8      | VICAERS<br>AA-8045G-L-8 | -1-9                          | :      |
| FAILURE MODE-E.                     | ODE-ERRATIC OP                                              | FAILURE MODE-ERRATIC OPERATION. UMUSUAL PRESSURE PLUCTUATIONS NOTED IN SUSTAINER/WERNIER SYSTEM BURING FIRST SS SEC<br>MOS OF FLIGHT. POSSIBLY CAUSED BY ERRATIC OPERATION OF THE PURP COMPENSATOR DUE TO CONTANIMATION.                                                          | NE NOTED IN BUSTAIN<br>PURE CONFENSATOR BU | ER/VERNIES               | SYSTEM B                          | 5        | 7 F1887                 | 39 9EC                        |        |
| SYSTEN EFFECT<br>TEN OPERATION.     | FECT-ERRATIC OF<br>ION.                                     | STSTEM EFFECT-ERRATIC OPERATION. MAXIMUM PRESSURE OF 3240 PSIG DURING CACILLATORY PERIOD MAS NOT DETRIMENTAL TO 375<br>Em operation.                                                                                                                                              | DIS DURING CACILLAN                        | ORV PERIOR               | TON 648                           | DC TR    | MENTAL                  | 10 274                        |        |
| WEHICLE EF                          | WEHICLE EFFECT-NOME.                                        |                                                                                                                                                                                                                                                                                   |                                            |                          |                                   |          |                         |                               |        |
| CORRECTIVE ACTI                     | E ACTION-NOME.                                              |                                                                                                                                                                                                                                                                                   |                                            |                          |                                   |          |                         |                               |        |
| HYDRAULIC-A/B<br>BUSTAINER/VERNIER  | /b<br>Ernier                                                | A-58-04-3472F<br>VERNIER ACTUATOR ASSENDLY                                                                                                                                                                                                                                        | FAR<br>27-8312-805                         | #<br>#071                | ETA                               | 20       | 10€L                    | VES LIGHEL PACIFIC 884187     |        |
| FAILURE M                           | ODE-EXTERNAL LI                                             | FAILURE MODE-EXTERNAL LEAR. ACTUATOR IR/D FOR LEARASE.                                                                                                                                                                                                                            |                                            |                          |                                   |          |                         |                               |        |
| CORRECTIVE                          | E ACTION-NONE.                                              | CORRECTIVE ACTION-NONE. FAILURE NOT CONFIRMED.                                                                                                                                                                                                                                    |                                            |                          |                                   |          |                         |                               |        |
| HTDRAILIC-A/B<br>SUJTAINER: YERNIER | /b<br>Ernier                                                | A-94-04-3393-F<br>ACTUATOR ASSENDLY, O-RING                                                                                                                                                                                                                                       | FAR<br>27-65314-617                        | 34.<br>6007.7            | SCHILLIM VES LIGHEL PACIFIC       | 5 5      | IOEL                    | PACIFIC                       | ****** |
| FAILURE ME<br>LVE ASSEMBI           | FAILURE MODE-LEAK-EXTERNAL.<br>LVE ASSENBLY, LEAK COULD NOT | FAILURE MODE-LEAK-EXTERMAL. SUBTAINER BERVOCYLINDER ABBENGLY IR7D FOR LEAKED MYDRAULIC FLUID AROUND BASE OF BERVONA<br>NE ASSEMBLY. LEAK COULD NOT BE COMFIRMED: MONEVER ON DIBABBENGLY OF BERVO VALWE A MIBSIMS O-RIMS WAS NOTED.                                                | T IA/D FOR LEAKED H<br>EMBLY OF MEANC VALN | TDRAULIC F<br>E A MISSIA | CUID AROU                         | 2 1      | Nate of a               | MER VOVA                      |        |
| CORRECTIVE ACTI                     | E ACTICA-COGNIZ<br>UNITS ASSEMBLE<br>65 BY 60/C CON         | CORRECTIVE ACTION-COGNIZANT ASSEMBLY PERBONNEL MERE INFORMED OF DEFFICIENCY. ALBO A 84-MOMR STATIC LEAR TEST INITIA<br>ED OM ALL UMITS ASSEMBLED AT GO/C. REF RAR A-6F-04-3012 WRITTEN 7 NOW 1962. ALBO REF ECH 44110 REGUIRING REPLACEMEN<br>OF O-RINGS BY GO/C CONTROLLED PART. | D OF DEFFICIENCY. A                        | 180 A 84-1<br>80 REF EC  | OUR \$7AT]<br>1 44110 RE          |          | Nr. 1687<br>196 ACP     | INI TIA<br>LACEMEN            |        |
| HYDRAULIC-A/B<br>BUSTAINER/VERNIER  | /B<br>Ernier                                                | A-9H-10-1E4F<br>HYDRAULIC PUMP, O-RING                                                                                                                                                                                                                                            | FAR<br>87-04580-1                          | <b>66</b> 0718           | SCHILLIN YES VICKERS              | 1 C C    | VICKERS<br>AA-80401-L-E | 1-1-8                         | •••    |
| FAILURE HE                          | ODE-LEAK-EXTERI                                             | FAILUME MODE-LEAK-EXTERM.L. HYDRAULIC OIL LEAKED PAST THE DRIVE SHAFT SEALS.                                                                                                                                                                                                      | RIVE SHAFT SEALS.                          |                          |                                   |          |                         |                               |        |

COMBECTIVE ACTION-FAILURE CONFIRMED. EFFECTIVE FEB. 8 1848. RECEIVING INSPECTION PROCEDURE RT-6C-18083 WAS REVISED. RESULATING THAT SUSTAINER PUMPS BE PREMSURED TO 80 PRIS WITH INLET AND CUTLET PORTS BLOCKED FOR 24 HOURS WITH NO L. GARAGE PERMITTED.

SENERAL BYNAHICE CONVAIR BIVIBION

DIFFICULTIES REVIEW-HYDRAULIC SYSTEM-AIRBORNE

10 10% 1000

| 8181EH<br>806-8181EH                                       | TEST/AEPONT HUMBER<br>PAILED COMPOMENT MANE                                                                                                                                                                                                              | DIF DATA BOURCE<br>PART HUMBER                | VEHICLE BITE PRE VENDOR MANE DATE BIF THE BIF OTH VEHOOR PART NO | 11 DIF                | PRI VENDO                                                     | VENDOR NAME<br>THOOR PART NO |                                        |
|------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|------------------------------------------------------------------|-----------------------|---------------------------------------------------------------|------------------------------|----------------------------------------|
| HTDRAULIC-A/B<br>BUBTAINER/VERNIER                         | A-80-04-3421-F<br>VERNIER ACTUATOR ABSENDLY                                                                                                                                                                                                              | FAR<br>87-08811-008                           | V 011020                                                         | W.                    | TES LIGHEL PACIFIC BR4154                                     | PACIFIC                      | 1                                      |
| PAILUME MODE-LEAK, ENTE                                    | FAILUME MODE-LEAK, EKTERMAL, EKTERMAL LEAKAME AROUMD OMAFT WAS REPORTED.                                                                                                                                                                                 | T WE REPORTED.                                |                                                                  |                       |                                                               |                              | ······································ |
| CORRECTIVE ACTION-FAILURE<br>AGE CRITERIA FOR REJECTION.   | COMRECTIVE ACTION-FAILURE NOT CONFIRMED. PIELD PERBONNEL MEME ADVIAED OF TEST RESULTS AND MEME INFORMED OF THE LEAK<br>Ge criteria for rejection.                                                                                                        | NERE ADVISED OF TEST                          | RESULTS AND                                                      | MEAE 18               | ORNED OF                                                      | THE LEAR                     |                                        |
| HTDRAULIC-A/B<br>BUSTAINER/VERNIER                         | A-88-04-3341-F<br>ACTUATOR ASSEMBLY                                                                                                                                                                                                                      | FAR<br>27-05314-017                           | 1017                                                             | FACTORY               | MO LIGHEL PACIFIC 687186                                      | PACIFIC                      |                                        |
| FAILURE HODE-OUT OF APE<br>O VALVE. ACTUATOR MAE IR        | FAILURE HODE-OUT OF APECIFICATION. THE PITCH ACTUATOR INDICATED OUT OF MALL. RECOMMENDATION-EMBINEERING AGJUST BERV<br>O VALVE. ACTUATOR WAI IRZO. FAILURE AMALYSIS FOUND NOTHING WACHG WITH VALVE ERCEPT THAT IT NEEDED ADJUSTNENT.                     | HEATED OUT OF HALL.                           | RECOMENDATION SEPT THAT IT                                       | DH-EN61NE<br>NEEDED / | CERIMG ACJ                                                    | UBT BERV                     |                                        |
| CORRECTIVE ACTION-NOME-                                    | CORRECTIVE ACTION-NOME-ABBEMBLY COULD HAVE BEEN ADJUSTED REF. RELIABILITY HENCHANDUM REL 48-61-008 OF 13 OCTOBER 18<br>2.                                                                                                                                | REP. RELIABILITY NEDW                         | MANDUM REL (                                                     | <br>                  | Ø 13 Ø                                                        | .TOBER 10                    |                                        |
| HYDRAULIC-A/B<br>SUSTAINER/VEHMIER                         | A-90-04-3485-C<br>Verhier Actuator Abbengly                                                                                                                                                                                                              | FAR<br>27-65311-9                             | 1200 M                                                           | <b>5</b>              | TES LICHEL PACIFIC 884455                                     | PACIFIC                      |                                        |
| FAILURE MODE-ERRATIC OF<br>RICED TO BITE. UNIT MAB I       | PAILURE MOE-ERRATIC OPERATION. VERNIER BENVO CYLINDER ABBENDLY BECAME ERRATIC. THIS ABBENDLY WAS REPAIRED AND RETU<br>Ried to site. Unit was imadyentemily assigned to the guidance control laboratory, as per tha vanman 10-res-10-10-de.               | HEEBLY BECAME ENNATIONEE CONTROL LABORATO     | C. THIS ABSE<br>TY, AS PER TI                                    | MALT MAS              | REPAINED<br>\$ 10-205-1                                       | AMD RETU<br>0-16-62.         |                                        |
| CORRECTIVE ACTION-THIS                                     | COMPECTIVE ACTION-THIS PAILURE ANALYSIS IN S CANCELLED.                                                                                                                                                                                                  |                                               |                                                                  |                       |                                                               |                              |                                        |
| HYDGAULIC-A/B<br>Bubtaineq/Vernier                         | A-9L-10-129F<br>BOOFTER BTASINS DISCONSECT                                                                                                                                                                                                               | FAR<br>27-06556-8                             | 407 62                                                           | LINCOLN               | VEB PEACOCK<br>NO 51280-5                                     | <b>#</b> •                   | <u> </u>                               |
| FAILURE HODE-LEAK-EXTER<br>87-08556-5.                     | FAILURE MODE-LEAR-EXTERMAL. HYDRAULIC OIL LEAKED DURING MIGM PRESSURE TEST. LEAKAGE ATTRIBUTED TO MATING MALF PART<br>7-08556-3.                                                                                                                         | 1164 PRESSURE TEST. L                         | EAKASE ATTRI                                                     | 01 03114              | m Time                                                        | 7 PART                       |                                        |
| CORRECTIVE ACTION-PAILUMS CAUSE OF LEARAGE. COASH-10-125F. | CORECTIVE ACTION-PAILURE NOT CONFIRMED NO CORRECTIVE ACTION DEEMED NECESSARY BECAUSE MATING MALF OF THIS COUPLING<br>Mas cause of leakage, corrective action on part 87-08558-5 Mas to eliminate smarp Edge on Probe, and is noted in Pa<br>Abn-10-1857. | ION DEEMED NECESSARY<br>) MAS TO ELININATE SM | BECAUSE NAT                                                      | ING HALF              | MATING MALF OF THIS COUPLING<br>ON PROSE, AND IS MOTED IN PAR | COUPLING<br>ED 18 FAR        |                                        |

GENERAL BYNAHICS CONVAIR BIVISION

18 JUN 1986

|                                               |                                                                      | 2                                         |                                                                                                                                                                                                                                                                |                                    | <del></del>                                                                                                                                                                                                       | 1                                                                                   | •                                                |                                                                                                                                                                                                   |                                                                                                 | :                                     |                                                                                                                                                                                                                                                                                         |
|-----------------------------------------------|----------------------------------------------------------------------|-------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|---------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                               | PART RO                                                              |                                           | <u> </u>                                                                                                                                                                                                                                                       | 0-1-8                              | ne ta ine                                                                                                                                                                                                         | P/M 181                                                                             | VES LIGHEL PACIFIC                               | 6<br>5<br>8                                                                                                                                                                                       |                                                                                                 | ATE                                   | ALY 10                                                                                                                                                                                                                                                                                  |
|                                               | VENDOR MANE                                                          | VES PEACOCK<br>NO 51280-3                 | 9                                                                                                                                                                                                                                                              | VES VICKERS<br>NO AA-60410-L-E     | CA186                                                                                                                                                                                                             | <u>0</u>                                                                            | LIGHEL                                           | TAIBUTE                                                                                                                                                                                           |                                                                                                 | INTERST                               | D PROPE<br>UBTHENT                                                                                                                                                                                                                                                                      |
|                                               | 2 5<br>0                                                             | 20                                        | MAIN                                                                                                                                                                                                                                                           | 58                                 | ¥                                                                                                                                                                                                                 | 8                                                                                   | 20                                               | 14 &1                                                                                                                                                                                             |                                                                                                 | 45.0                                  | <b>8</b> 3                                                                                                                                                                                                                                                                              |
|                                               | VEHICLE BITE PRI VENDOR NAME<br>DATE DIF TIME DIF OTH VENDOR PART NO | LINCOLN                                   | 4 TON B                                                                                                                                                                                                                                                        | Ĕ                                  | t Anound 1                                                                                                                                                                                                        | SURCE IE                                                                            | Ę                                                | FAILURE W                                                                                                                                                                                         | UBTHENT.                                                                                        | SCHILLIN YES INTERSTATE               | ILED TO RI<br>THE HOZZLI                                                                                                                                                                                                                                                                |
| ¥                                             | WEHICLE<br>DATE DIF                                                  | 40F<br>420703                             | AUGED BY .                                                                                                                                                                                                                                                     | 20702                              | NE HOUSIN                                                                                                                                                                                                         | ALL PURE                                                                            | 1190<br>600703                                   | .6 118                                                                                                                                                                                            | MALL AD                                                                                         | 250 TOS                               | TUATOR PA                                                                                                                                                                                                                                                                               |
| WEIC SYSTEM-AIRBOR                            | DIF DATA SOURCE<br>PART NUMBER                                       | FAR<br>87-06556-3                         | IED COMDITION MAB C                                                                                                                                                                                                                                            | FAR<br>27-04580-3                  | BY SCRATCHES IN T                                                                                                                                                                                                 | MAIZATION TEST ON                                                                   | FAR<br>27-85314-819                              | CHECKOUT OF MISSI<br>TORY CHECKOUT.                                                                                                                                                               | ID TO ASSUME PROPER                                                                             | FAR<br>E7-63311-607-01                | ILE CHECKOUT THE AC<br>IFT MITHIN THE BERN                                                                                                                                                                                                                                              |
| DIFFICULTIES REVIEW-HYDRAULIC SYSTEM-AIMBCAME | TEST/REPORT NUMBER<br>FAILED COMPOMENT NAME                          | A-BH-10-125F<br>BTAGING BISCOMECT, O-RING | FAILUME MODE-LEAK-EXTERMAL, HYDRAULIC OIL LEARAGE IN THE MATED CONDITION WAS CAUGED BY A TORN BUSTAINER O-RIMG BEAL<br>Because of a harp Edge on the Booster Probe.<br>Corrective action—the bharp edge was removed prom the Probe by the Vendor via Vor 3747. | A-90-10-139F<br>PUMP, O-RING       | FAILURE MODE-LEAR-EXTERNAL. HYDRAULIC OIL LEARAGE MAS CAUSED BY SCRATCHES IN THE MOUSING AROUND THE BEARING METAINE<br>R O-RING. THE CASE DRAIN PLUS O-RING WAS CUT AND OTHER O-RINGS WERE PERMANENTLY PLATTENED. | CONTEST OF TOTAL PROOF WILL INCOMPORATE A 24 HOUR PRESSURIZATION TEST ON ALL PURPS. | 9F-9D-04-3246F<br>ACTUATOR ASSEMBLY, MERNO VALVE | FAILURE MODE-OUT OF TOLERANCE-FAILED TO MULL PROFERLY DURING CHECKOUT OF MISSILE 1190. FAILURE WAS ATTRIBUTED TO IM<br>Proper mul adjustment of servo valve during assengly and pactory checkout. | CORRECTIVE ACTION-RECEIVING INSPECTION TEST PROCEDURE REVISED TO ASSURE PROPER MULL ADJUSTMENT. | A-PH-D4-3173F<br>ACTUATOR, BERVOVALUE | FAILURE MODE-FAIL TO CPERATE AT PRESCRIBED TINE-DURING HISBILE CHECKOUT THE ACTUATOR FAILED TO RESPOND PROPERLY TO<br>AUTOFILOT INFUT SIGNALS. THE FAILURE RESULTED FROM A MALL SHIPT MITHIN THE SERVO VALME. THE MOZZLE ADJUSTMENT SCREW<br>HAD MOVED. THE CONTROL MOZZLE WAS DANKEED. |
|                                               | 8787EH<br>848-8787EH                                                 | HTDRAULIC-A/B<br>BUSTAIMER/VERMIER        | FAILURE MOE-LEAK-ENTERMAL, HYDRAULIC OIL LEA<br>BECAUSE OF A SHARP EDGE ON THE BOOSTER PROBE.<br>CORRECTIVE ACTION-THE SHARP EDGE WAS REMOVED                                                                                                                  | HYDRAULIC-A/B<br>BUSTAINER/YERNIER | FAILURE MODE-LEAK-EXTERM R O-RING, THE CASE DRAIN I                                                                                                                                                               | 127 (DUKONETER OF 70). VEN                                                          | HYDRAULIC-A/8<br>Sustainer/Vermer                | FAILURE MOE-OUT OF TOLE!<br>PROPER MALL ADJUSTMENT OF                                                                                                                                             | CORRECTIVE ACTION-RECEIV                                                                        | HYDRAULIC-A/B<br>BUSTAIMER/VERNIER    | FAILURE MODE-FAIL TO OPERATE AT PRESCRIBE<br>AUTOFILOT IMPUT STEMALS. THE FAILURE RESUL<br>MAD MOVED. THE CONTROL MOZZLE MAS DANKEED.                                                                                                                                                   |

CORRECTIVE ACTION-60/C MAS INFORMED THE VENDOR OF THE FINDINGS OF THIS AMALYSIS AND IS RESUESTING THAT APPROPRIATE ACTION OF TAKEN. THE VENDOR MAS CONDUCTED INSTRUCTIONAL TRAINING COURSES AND MAS INCREASED ASSEMBLY LINE INSPECTION.

SENERAL DYNAMICS

9961 NOF 61

|          | 9961 NOT 61                                                                                                                        | DIFFICULTIES REVIEW-HYDRAULIC SYSTEM-AIRBORME                                                                                                                                                                                                                                                                                                                                                                                                                                              | AULIC BYBTEN-AIRBORE                                                                                                  | ~                                  |                   |            |                                                  | ſ     |                        |
|----------|------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|------------------------------------|-------------------|------------|--------------------------------------------------|-------|------------------------|
| <u></u>  | STSTEM<br>SU3-STSTEM                                                                                                               | TEST/REPORT HUMBER<br>FAILED COMPONENT HANS                                                                                                                                                                                                                                                                                                                                                                                                                                                | DIF DATA BOUNCE<br>PART NUMBER                                                                                        | WEMICLE<br>DATE DIF                | BITE PRI          | 4 0<br>E E | VENDOR HAME<br>VENDOR PART NO                    | 8     |                        |
| 1 .      | HTDRAULIC-A/B<br>BUSTAINER/VERNIER                                                                                                 | A-98-04-3388-F<br>ACTUATOR ASSEMBLY, O-RIM6                                                                                                                                                                                                                                                                                                                                                                                                                                                | FAR<br>27-65812-608                                                                                                   | 1450<br>66068                      | £ .               | ž 0        | TES LIGHEL PACIFIC 607595                        | ž     | 107101                 |
|          | FAILURE MODE-LEAR-EXTER<br>OR BODY, REMOVAL OF THE                                                                                 | AK-EXTERNAL. THE VERNIER BERVOCYLINDER NAS FOUND TO BE LEARING BETNEEN THE BERVOVALVE AND THE OF THE BERVOVALVE REBILIENCY.                                                                                                                                                                                                                                                                                                                                                                | WAS FOUND TO BE LEARING BETWEEN THE SERVOVALVE AND THE ACTUAT MONEVER THE O-RINGS APPEARED TO LACK PROPER RESILIENCY. | JETHEEN TY<br>NRED TO LJ           | K BERVOVI         | 1 453 Y    | IND THE ACT                                      | į     |                        |
|          | CORRECTIVE ACTION-ALL O-RIME<br>SEMBLY TO ACTUATOR CYCLINDER.                                                                      | ON-1LL O-RINGS RECEIVED WITH THE SERVOYALVE WILL BE REPLACED WITH 60/C CONTROLLED ONES AT TIME OF AS<br>OR CYCLINDER.                                                                                                                                                                                                                                                                                                                                                                      | WILL BE REPLACED W                                                                                                    | 73 9/ <b>93</b> H                  | MTROLLED          | 500        | AT 11ME OF                                       | *     |                        |
|          | HYDRAULIC-A/B<br>Bubtainer/Vernier                                                                                                 | A-B4-10-12EF<br>SUSTAINER RELIEF VALVE                                                                                                                                                                                                                                                                                                                                                                                                                                                     | FAR<br>87-06560-8                                                                                                     | 716                                | SYCAMORE          | ÷ 9        | SYCAMORE YES PANTEX/SEMBON<br>NO SELEC           |       | •                      |
|          | PAILUME MOLE-OUT OF TOLERAN<br>TEAD OF 10 GPM AT FULL FLOM.                                                                        | PAILUME HOLE-OUT OF TOLERANCE. VALVE FAILED TO REBEAT AT SPECIFIED PRESSURE, THE PLOW WAS RESTRICTED TO 8.5 GPM INS<br>Ead of 10 GPM at Full Flow.                                                                                                                                                                                                                                                                                                                                         | ECIFIED PREDDURE. T                                                                                                   | # 79 #                             | 16 BESTAI         | 5          | 5                                                | 2     |                        |
|          | CORRECTIVE ACTION-VENDO                                                                                                            | CH-VENDOR ADVISED OF OUT OF TOLERANCE ADJUSTNENT AND MILL TAKE ACTION TO PROFERLY ADJUST VALVES.                                                                                                                                                                                                                                                                                                                                                                                           | HENT AND WILL TAKE                                                                                                    | ACTION TO                          | PROPERLY          | Abje       | DT VALUES.                                       |       |                        |
| 1        | HYDRAULIC-A/B<br>SUSTAINER/VERNIER                                                                                                 | A-90-54-3E4EF<br>ACTUATOR ASSEMAT, O-RIMG                                                                                                                                                                                                                                                                                                                                                                                                                                                  | FAR<br>27-65511-607                                                                                                   | #0410                              | <b>88</b> 17.1    | 5 8        | TES LIGHEL PACIFIC<br>NO                         |       | 1                      |
|          | FAILURE MODE-LEAK EXTER<br>PPED UHEN PRESSURE MAS R<br>MUMEVER, ACTUATOR MAS C                                                     | FAILURE MOE-LEAK EXTERMAL ACTUATOR WAS POUND TO LEAK AT 40 PSIS DURING MOUTINE INDRECTION OF NISSILE 641. 'EAK STO<br>PED UMEN PRESSURE MAS RAISED TO 3000 PSIS, LEAK RATE WAS NOT DOCUMENTED. LEAK WAS NOT VERIFIED IN FAILURE AMALYSIS.<br>MANEVER, ACTUATOR WAS CONTANIMATED MITH NETAL CHIPS UNION COULD CAUSE A LEAK AT O-PIUM.                                                                                                                                                       | PEIS DURING MOUTIN<br>37 DOCUMENTED. LEAR<br>COLD CAUSE A LEAR A                                                      | E 100FCT<br>MAS HOT W<br>T 0-01-0. | CAIFIED E         | A PAICE    | GAE. 'EAR<br>LUME AMALT!                         | 2 :   |                        |
|          | CORRECTIVE ACTION-LION                                                                                                             | ION-LIONEL-PACIFIC INCOMPORATED AN ADDITIONAL CLEANING BIEF IN NAMERACTURING PROCESS OF ACTUATOR.                                                                                                                                                                                                                                                                                                                                                                                          | CLEANING BTEP IN N                                                                                                    | ANETACTUR                          | ING PROCE         | 8          | ACTUATOR.                                        |       |                        |
| <u> </u> | HYDRAUL IC-A/B<br>BUSTAINER/VERNIER                                                                                                | A-94-04-5548F<br>ACTUATOR, ABBENGLY                                                                                                                                                                                                                                                                                                                                                                                                                                                        | FAR<br>87-83314-617                                                                                                   | 31¢<br>660617                      | DYESS AF          |            | DVESS AF YES LICHEL PACIFIC 007100               | 214   | <b>66</b> 27 <b>60</b> |
| 5        | FAILURE MODE-ERRATIC CPERATION. N AS INDICATED BY THE AUTOFILOT NOT-AT-MULL MAS RECEIVED. FAILUR HAT THE FAILURE MAS DUE TO AIR II | FAILURE MODE-ERRATIC CPERATION. DURING THE RUNNING OF PROCEDURE 27-41074. THERE WAS A SLOW RESPONSE TO MULL POSITIO<br>1 AS INDICATED BY THE AUTOFILOT ENGINE POSITION. WEN HYDRALLIC PRESSURE WAS BROUGHT UP, AN INDICATION OF SUSTAINER<br>10T-AT-HULL WAS RECEIVED. FAILURE ANALYSIS PUNCTIONAL TESTING DID NOT CONFIRM THE REPORTED FAILURE. IT IS SELIEVED T<br>1 AT THE FAILURE WAS DUE TO AIR IN THE HYDRAULIC BYSTEM, WHEN THE BERNOCYLINDER WAS REPLACED. THE FILL AND DRAIN PROC | DUME ET-41074; THEN<br>ALIC PRESSURE MAS BA<br>NA DID NOT CONTINE<br>N THE BENVOCYLINGER                              | E MS A SOUTH UP.                   | CED, THE CED, THE | 7 A 1 G    | O MAL POS<br>OF SUSTAI<br>18 SELIEV<br>AMD DRAIM | FE TO |                        |

CORRECTIVE ACTION-MONE.

SENER JYNAMICS CONVAIR BIVISION DIFFICULTIES REVIEW-HYDRAULIC SYSTEM-AIRSORME

18 JUN 1866

| 8781EN<br>848-878EN                                                                | TEST/REPORT NUMBER<br>FAILED COMPOMENT NAME                                                                                                                                                                                                                                                                            | DIF DATA SOURCE<br>PART NUMBER                                | WENICLE<br>DATE DIF | 81 TE<br>11 ME 019                    | Ēō      | WENICLE BITE PRI VENDOR MANE<br>BATE BIF TIME BIF OTH VENDOR PART NO |          |   |
|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------|---------------------|---------------------------------------|---------|----------------------------------------------------------------------|----------|---|
| HYDRAULIC-A/B<br>BUSTAIMER/VERNIER                                                 | A-BW-10-123F<br>HYDRAULIC STASING DISCOMECT, O-RI 27-05556-5<br>NG                                                                                                                                                                                                                                                     | FAR<br>87-05550-5                                             | £74<br>860616       | AL TUB                                | ត្ត     | PEACOCK<br>S1250-5                                                   | :        | 2 |
| FAILURE MODE-LEAK EXTERNAL<br>EDGE ON THE BOOSTER PROBE.                           | FAILURE MODE-LEAK EXTERNAL. HYDRAULIC OIL LEAKAGE IN THE MATED COMDITION CAUBED BY A DAMAGED O-RIMS DUE TO A BMARP<br>IDGE ON THE BOOSTER PROBE.                                                                                                                                                                       | TED CONDITION CAUMER                                          | A A 0 A W           | AGED 0-81                             | *       | OK TO A SMAR                                                         | •        |   |
| CORRECTIVE ACTION-THE BA                                                           | CORRECTIVE ACTION-THE SMARP EDGE WAS RENOVED PROM THE PROBE BY THE VENDOR VIA VCR 3747.                                                                                                                                                                                                                                | BY THE VENDOR VIA                                             | KA 3747.            |                                       |         |                                                                      |          |   |
| Hydraul I C-A/B<br>Busta i Mer/Verni er                                            | A-9H-10-125F<br>STACING DISCOURCT, G-RIM                                                                                                                                                                                                                                                                               | FAR<br>27-06556-3                                             | £77<br>\$20616      | AL 746                                | 20      | TES PEACOCK<br>NO 81290-3                                            | ***      | 2 |
| FAILURE MODE-LEAK EXTERN<br>BECAUSE OF A SHARP EDGE (                              | FAILURE MODE-LEAK EXTERMAL, HYDRAULIC OIL L <b>earage in the mate</b> d combition <b>und caubed by a torn bustainer</b> o-rim <b>g beal</b><br>Because of a smarp edge on th <b>e booster prode</b> .                                                                                                                  | TED CONDITION WAS CA                                          | USED BY A           | TORN BUS                              | MIAT    | ER O-RING BEA                                                        |          |   |
| CORRECTIVE ACTION-THE SH                                                           | CORRECTIVE ACTION-THE SMARP EDGE HAS RENOVED PROM THE PROBE BY THE VENDOR VIA VCR 3747.                                                                                                                                                                                                                                | BY THE VENDOR VIA                                             | KR 3747.            |                                       |         |                                                                      |          |   |
| Hydraul IC-A/B<br>Bustainer/Vernier                                                | A-8D-10-120F<br>Pump, Plance                                                                                                                                                                                                                                                                                           | FAR<br>E7-06590-3                                             | 67E<br>620614       | <b>8</b> 58                           | 5 0     | TES VICKERS<br>ND AA-60410-L-E                                       | <b>1</b> | = |
| FAILURE MODE-LEAK-ENTERN.                                                          | FAILURE MODE-LEAK-EXTERNAL. LEAKAGE APPEARED AT THE COMPENSATOR FLANGE, DUE TO IMPERFECTIONS ON THE SEALING SUMPACE                                                                                                                                                                                                    | ATOR PLANEE, DUE TO                                           | 11 <b>PERPE</b> CT  | 15 at 0                               | Ä       | EALING BURFAC                                                        |          |   |
| CORRECTIVE ACTION-PRESSU-HOUR LEAK TEST.                                           | CORRECTIVE ACTION-PRESSURIZATION OF PUMP DID NOT PRODUCE LEARAGE. GO/C REVINED PROCEDURE E7 OCIDOUS TO INCLUDE A E4<br>Hour leak 1881.                                                                                                                                                                                 | AKAGE. 60/C REVINED                                           | PROCEDURE           | 27 ec100                              | 3       | O INCLUDE A B                                                        |          |   |
| HTDRAULIC-A/B<br>BUSTAIMER/VERNIER                                                 | A-DM-10-143F<br>Bustainer Hydraulic Pund                                                                                                                                                                                                                                                                               | FAR<br>27-06590-3                                             | 3000                | SCHILLIN YES VICKERS<br>6 ND AA-60410 | ភ្នំ ខ្ | VICKERS<br>AA-60410-L-E                                              | 1190     | = |
| FAILURE MODE-STRUCTURAL.<br>CASE HAD A 6 INCH CRACK R<br>AILURE MAS CAUSED BY CYER | FAILUME MODE-STAUCTURAL, TWO CRACKS MEME DISCOVERED IN THE PUMP CASE AFTER PERFORMANCE OF PROCEDUME 27-56341. PUMP<br>CASE HAD A 6 INCH CRACK RUMNING FROM THE SHALL COVER PLATE AT ONE END TO THE MOUNTING PLANGE AT THE OTHER END. THE P<br>AILUME HAS CAUSED BY CVERSTRESS DUE TO OVERPHEDSUR/ZATION OF THE STSTEM. | PUMP CASE AFTER PERI<br>IT OME END TO THE HON'<br>ITHE STREM. | COMMICE O           | F PROCEDI                             |         | 7-96541. PUM<br>HER EIG. THE                                         |          |   |
|                                                                                    |                                                                                                                                                                                                                                                                                                                        |                                                               |                     |                                       |         |                                                                      | ., —     |   |

CORRECTIVE ACTION-PERSONNEL AT BHILLING MERE NOTIFIED BY THE BOFISS THE FAILURE WAS CAUSED BY OVER PRESSURIZATION O
F THE SUSTAINER HYDRAULIC RETURN LINE. THIS INFORMATION RELAYED TO SUPPORT PUBLICATIONS DEPARTMENT TO INSURE COMPATS
SILITY MITH APPLICABLE OPERATION TECHNICAL ORDERS.

SENERAL BYNAMICS CONVAIR BIVIBION

|                                               |                                                     | 2                                      |                                                                                                                                                                                                                                                                                                 | •                                  |                                                 | 14014                                       |                                                                                                                                                                                                                                                                                                                   | •• 72.4•                                   |                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                           |
|-----------------------------------------------|-----------------------------------------------------|----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|-------------------------------------------------|---------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                               | BITE PRI VENDOR NAME<br>TIME BIF OTH VENDOR PART NO | SYCANORE NO VINSON<br>NO A-61071       | OF THE VALVE BOOT. FLUID                                                                                                                                                                                                                                                                        | ETR YES PEACOCK ENG. 1             |                                                 | SCHILLIN YES CLEMCO                         | THE CAUSED BY INSTALLATIO                                                                                                                                                                                                                                                                                         | SAFE YES LICHEL PACIFIC 007240             | NED AT THE SHAFT SEAL DURI<br>PAILURE ATTRIBUTED TO GALL                                                                                                                                                                                                                                      | AND LOCKWIRED AFTER THE 49 GAINST ECCENTRICITY BUILDUP                                                                                                                                                                                                                                                    |
| ¥                                             | WENICLE<br>DATE DIF                                 | 756                                    | THO MALME                                                                                                                                                                                                                                                                                       | 136036                             |                                                 | 918030                                      | THE FALLUM                                                                                                                                                                                                                                                                                                        | <b>45</b> 0317                             | SE HOURS.                                                                                                                                                                                                                                                                                     | AETONOUEN                                                                                                                                                                                                                                                                                                 |
| RAULIC BYCTEN-AIRBOR                          | DIF DATA BOURCE<br>PART HUNDER                      | FAR<br>87-00860-1                      | TIME BURFACES OF THE                                                                                                                                                                                                                                                                            | FAR<br>E7-00556-3                  |                                                 | FAR<br>27-03314-017                         | THE ACTUATOR BHAFT.                                                                                                                                                                                                                                                                                               | FAR<br>27-45314-617                        | ADDRLY WAS REJECTED .<br>EAKAGE OF 8 DAOPS IN                                                                                                                                                                                                                                                 | IT ABSCHELY RINGS ARE<br>PROCEDURE CHANGE WILL<br>BOME.                                                                                                                                                                                                                                                   |
| DIFFICULTIES REVIEW-HYDRAULIC STOTEM-AIRBORNE | TEST/REPORT NUMBER<br>FAILED COMPONENT NAME         | A-BB-10-130F<br>HYDRAULIC RELIEF VALVE | FAILUME HODE-LEAK EXTERNAL, HYDRAULIC OIL LEAKED AT THE MATIMA SURFACES OF THE THO MALVES OF THE VALVE BOOT, FLUIS US FROM OTHER BOURCE, COKRECTIVE ACTION-NO FAILURE, GO/C ADVISED PERSONNEL TO INVESTIGATE OTHER BOURCES OF POSSIBLE LEAKS AND TO WERIFY L. AKS BEFORE REMOVAL OF COMPONENTS. | A-98-10-110F<br>81A61NG DISCOMECT  | AK-HYDRAULIC OIL LEAKB.<br>E NOT CONFIRMED.     | A-9H-04-3436-F<br>ACTUATOR ASSEMBLY, O-RING | FAILURE MODE-OUT OF TOLERANCE, A LEAK MAS OBSERVED AROUND THE ACTUATOR BHAFT. THE FAILURE WAS CAUSED BY INSTALLATIO<br>F OF THE WRONG SIZE O-RING DURING MANNFACTURE.<br>CORRECTIVE ACTION-CLENCO AERO PRODUCTS MAS NOTIFIED, AND INITIATED STRICTER INSPECTION METHODS TO INSURE INSTALLATION OF PROPER O-RINGS. | A-BH-D4-3406F<br>ACTUATOR ASSEMBLY, O-RING | FAILUME MODE-LEAK EXTERNAL. THE SUSTAINEN SERWOCYLINDER ASSEMELY IMS REJECTED MACH IT LEAKED AT THE SHAFT SEAL DURI<br>Me a hydrallic system check. Analysis deternined actuator leakage of 3 drops in 5g mours. Failure attributed to ball<br>Ins of cylinger as a result of piston bindims. | CONECTIVE ACTION-EFFECTIVE BEPTEMBER 1 1988: THE GLAND-MUT ASSEMBLY RINGS ARE RETORBUED AND LOCKWIRED AFTER THE 49 00 PSIS PROOF TEST TO ASSURE PROFER PISTON ALIGNMENT. THIS PROCEDURE CHANNEE WILL ASSURE AGAINST ECCENTRICITY BUILDUP A CAUSING THE ACTUATOR PISTON TO RUS THE ACTUATOR CYLINDER BORE. |
| 10 104 1000                                   | BVBTEN<br>BUD-BYBTEN                                | HYDRACE IC-A/B<br>BUSTAINER/VERNIER    | FALLURE MODE-LEAK EXTERNAL. HYDRA<br>MAS FROM OTHER BOURCE.<br>CORRECTIVE ACTION-NO FAILURE. 60/<br>EARS BEFORE REMOVAL OF CONFORENTS.                                                                                                                                                          | HYDRAULIC-A/B<br>BUSTAINER/VERNIER | FAILURE MODE-EXTERNAL LEAK-HYDRAULIC OIL LEAKB. | HYDRAULIC-A/B<br>BUSTAINER/VERNIER          | FAILURE MODE-OUT OF TOLERANCE, A LEAK MAS OBSING OF THE MRONG SIZE O-RING DURING NAMIFACTURE.  CORRECTIVE ACTION-CLENCO AERO PRODUCTS MAS NO ON OF PROPER O-RINGS.                                                                                                                                                | HYDRAULIC-A/B<br>BUSTAINER/VERNIER         | FAILURE MODE-LEAK EKTERNAL, THE SUSTAINER SER<br>MG A MYDRAULIC SYSTEM CHECK, ANALYSIS DETERNIN<br>1845 OF CYLINDER AS A RESULT OF PISTON SINDING.                                                                                                                                            | CORRECTIVE ACTION-EFFECT<br>00 PBIS PROOF TEST TO ABBI<br>B CAUBING THE ACTUATOR PLI                                                                                                                                                                                                                      |

SENERAL BYNAMICS CONVAIR BIVIBION

|                                                                                     | DIFFICULTIES REVIEW-HYDRAULIC SYSTEM-AIRSGRME                                                                                                                                                                                                                                                                     | IAULIC BYSTEN-AIRBORI                                    | <b>.</b>                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |       |                                                                      |          |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|----------------------------------------------------------------------|----------|
| 8181EM<br>846-878EM                                                                 | TEST/REPORT NUMBER<br>FAILED COMPOMENT MAME                                                                                                                                                                                                                                                                       | DIF DATA SCURCE<br>PART HUNGER                           | VEHICLE<br>DATE DIF     | 817E<br>TIME DIF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 1 × 0 | VENICLE SITE PRI VENDOR NAME<br>BATE BIF TIME BIF OTH VENDOR PART NO | 8        |
| HYDRAUL IC-A/B<br>BUBTAINER/VERNIER                                                 | A-BM-D4-3400-P<br>BUSTATHER ACTUATOR ABBENDLY                                                                                                                                                                                                                                                                     | FAR<br>E7-68314-617                                      | 40017                   | SCHILLIN 6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 20    | SCHILLIN VES LICHEL PACIFIC SESSES                                   | <u>:</u> |
| FAILURE MODE-LEAK EKTERNI<br>T LEAKAE MAS NOTED FROM '<br>BORE DAMASE OUE TO MECHAI | FAILURE MOSE-LEAK EXTERMAL, BURING HYDRAULIC SYSTEM CMECK, LEAKAGE WAS OBSERNED. PAILURE MAS MOT CONFIRMED. A BLIGH<br>T LEAKAGE MAS NOTED FROM THE GLAND-NUT, HOMENFR THE LEAKAGE RATE WAS INSIGNIFICANT, DISASSEMBLY OF CYLINDER REVEALED<br>BONE DAMAGE OUE TO MECHANICAL BINDING OF PISTON AND CYLINDER WALL. | LEAKACE WAS COSERVEE<br>Rate was imbiomifica<br>Ja Wall. | . Faicum<br>MT. Disas   | SEMBLY OF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 50    | INEG. A BL.<br>IDER REVEAL                                           | 33       |
| CORRECTIVE ACTION-VENDOR INITIATES<br>TO ASSURE PROPER PISTON ALIGHNENT.            | CORRECTIVE ACTION-VENDOR INITIATED ACTION TO RETORGIE, THE GLAND-MUT ASSENDLY AFTER A 4000 PSI. PROOF PRESSURE TEST<br>O ASSUME PROPER PISTON ALIGNMENT.                                                                                                                                                          | LAND-MUT ABBENELY AF                                     | TER A 400               | 0 PBI - M                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 8     | RESSURE TE                                                           | =        |
| HYDRAUL IC-A/B<br>BUSTAINER/YERNIER                                                 | A-99-04-3225F<br>ACTUATOR ASSEMBLY, O-RING                                                                                                                                                                                                                                                                        | FAR<br>87-65314-617                                      | 7.7E                    | FACTORY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 7. O  | YES LICHEL PACIFIC 88783                                             | 710      |
| FAILURE MODE-LEAR-EXTERN CORRECTIVE ACTION-VENDOR                                   | FAILURE MODE-LEAR-EXTERNAL-ACTUATOR LEAKED AT BEAL. O-RIMB MAS OF INCORRECT BIRE.<br>Corrective action-vendor inspection procedures infroved to assure installation of proper size o-rimss.                                                                                                                       | MAS OF INCOMECT BIS<br>ASSURE INSTALLATION               | e Hores                 | # H                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | ž.    |                                                                      |          |
| MYDRAULIC-A/B<br>Sustainer/Vermier                                                  | 38-98-10-109F<br>CHECK VALVE: 0-RING                                                                                                                                                                                                                                                                              | FAR<br>E7-00965-1                                        | <b>-1</b> 00 <b>3</b> 0 | 21.2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 2 Q   | VES CIRCLE SEAL<br>NO PS-319                                         | •        |
| FAILURE MODE-INTERNAL LEAK. HYDRAULIC<br>LLECT IN THE DOMSTREAN PREUNATIC LINE.     | FAILURE MOE-INTERNAL LEAR. HYDRAULIC LEAR ACROSS THE TANK PISTON AND THEN MENERSED PLON PAST THE CHECK VALUE TO CO<br>Lect in the domistream preumitic line.                                                                                                                                                      | PISTON AND THEN NEW                                      | ASE P.O.                | 7. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. A. T. | 3     | 1 VALVE 70                                                           | 8        |
| CORRECTIVE ACTION-CAUSE                                                             | CORRECTIVE ACTION-CAUSE OF FAILURE NOT CONFINED.                                                                                                                                                                                                                                                                  |                                                          |                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |       |                                                                      |          |
| HYDRAULIC-A/B<br>SUSTAINER/VERNIER                                                  | 40-90-10-100F<br>Hydraulic Taik, Beal                                                                                                                                                                                                                                                                             | FAR.<br>27-06552-6                                       | *16036                  | E.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 50    | 753 BENGON HF6 CO.<br>HO 8843                                        | · · ·    |
| FAILURE MODE-INTERNAL LES<br>EUNATIC BIDE CHECK VALVE                               | FAILURE MODE-INTERMAL LEAR-OIL LEARAGE ACROSS THE TAME PISTON AND THEM REVEASE PLOKED PAST AM ADDITIONALY FAULTY PH<br>Eumatic bide check value to deposite hydraulit oil in domstream pheumatic lines.                                                                                                           | OH AND THEN REVERBE<br>REAM PRECHATIC LINES              |                         | 10 AM 100                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | ž į   | ALY FAULTY                                                           | ŧ        |
| CORRECTIVE ACTION-FAILURE NOT CONFIRMED.                                            | I NOT CONTINUE.                                                                                                                                                                                                                                                                                                   |                                                          |                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |       |                                                                      |          |

GENERAL BYNAMICS CONVAIR BIVISION

| i                                             |                                             |                                            | and the second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second s |                                                                                                                                       | •                                           |                                                                                    |                                                                                                        | ••                                              |                                                                                                                                                    |                                                                                                                                                                                                                                         |                      | <del>1</del>               | :                                  | ····                                                                                                                                                                                         |                                                                                                                                                                                      |
|-----------------------------------------------|---------------------------------------------|--------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|-------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|----------------------------|------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                               | VEHICLE BITE PRI VENOOR MANE                | TES LIGHEL PACIFIC                         | INDER HOUSING U                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | ATORS WITH STEE                                                                                                                       | VES LIGHEL PACIFIC                          |                                                                                    |                                                                                                        | TES CADILLAC 646E<br>TES CADILLAC<br>FC-27-397A | REING ROLL ORK!                                                                                                                                    | COMBINATION OF<br>AL FRICTION.                                                                                                                                                                                                          |                      |                            | YES INTERSTATE<br>NO               | EXCESSIVE DUE                                                                                                                                                                                | 118ED 820717 (AE                                                                                                                                                                     |
|                                               | 16 PA 1                                     |                                            | NTOR CYL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | DY ACTU                                                                                                                               |                                             |                                                                                    | C O-RINE                                                                                               | 763                                             | YOR DIVE                                                                                                                                           | USCD BY                                                                                                                                                                                                                                 |                      |                            | -                                  | at Pound                                                                                                                                                                                     | 08.0 AEV                                                                                                                                                                             |
|                                               | 1 114C D                                    | AAFB                                       | ME ACTU<br>ECCENTI<br>ERATION.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | HINGH BY                                                                                                                              | FACTORY                                     |                                                                                    | PF.K 8121                                                                                              | 11                                              | HSIBLE !                                                                                                                                           | IBLY CAI                                                                                                                                                                                                                                |                      |                            | 2                                  | L.CURRE                                                                                                                                                                                      | £ 50 7                                                                                                                                                                               |
| BORNE                                         |                                             | 61.F<br>9.2090                             | CTION OF T<br>ESSIVE AND<br>DURING OF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | ENLACE ALU                                                                                                                            | 105029                                      | A 51 %.                                                                            | ION OF PRO                                                                                             | 1400                                            | DOK RESPO                                                                                                                                          | BOLO POBS<br>HIGH VERH                                                                                                                                                                                                                  |                      |                            | 27.<br>20.42.5                     | ISMAL. MA                                                                                                                                                                                    | T PROCEDUR                                                                                                                                                                           |
| DRAULIC BYSTEM-AIR                            | DIF DATA BOURCE<br>PART NUMBER              | FAR<br>E7-0531E-003                        | ROH THE CUTAMAY BE<br>RESULTING FROM EXC<br>MICH CYLINDER BODY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | NIVES COVERAGE TO R                                                                                                                   | FAR<br>27-05314-017                         | AS MAIS HOT OF PROPE                                                               | TO ASSURE INSTALLAT                                                                                    | FL1647<br>87-04208-1                            | . BERNO VALVE GEAD                                                                                                                                 | IATE DURIJE VERNIER<br>THIN TOLERANCE) AND                                                                                                                                                                                              |                      |                            | FAR<br>R7-65311-603                | OMD TO A MALING B                                                                                                                                                                            | TION ACCEPTANCE TER                                                                                                                                                                  |
| DIFFICULTIES REVIEW-MYDRAULIC SYSTEM-AIROCRNE | TEST/REPORT NUMBER<br>FAILED COMPONENT MANE | A-SN-04-3310F<br>ACTUATOR ASSEMBLY, O-RING | FAILURE MODE-LEAR-EXTERNAL. ACTUATOR LEARED EXCESSINCLY PROM THE CUTAMAY SECTION OF THE ACTUATOR CYLINDER MOUSIME U<br>Mer 1000 "sig static compitions, caused by o-rime danage resulting from excessive and eccemisic pistom land lombing<br>8 which in Turn resulted from Bending of The Alumiaum actuator cylinder body during operation.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | CORECTIVE ACTION-SALES ORDER BOI-1-65 EFFECTIVE GEORGO GIVES COVETAGE TO REPLACE ALUMINUM BODY ACTUATORS WITH STEE<br>Scot actuators. | A-99-04-3225-F<br>ACTUATOR ASSENSET, O-RING | FAILUKE HOUT-LEAK-EXTERNAL-ACTUATOR LEAKED AT BEAL. O-RING WAS NOT OF PROPER SIZE. | CORRECTIVE ACTION-VENDOR INSPECTION PROCEDURES INPROVED TO ASSURE INSTALLATION OF PROPER SIZE O-RINGS. | AEGE-047782-401-00-140<br>SCRUO VALVE           | FAILUKE MOE-OUT OF TOLERANCE. POSSIBLE LARGEN THAN USUAL BEAND VALVE GEAD BONE RESPONSIBLE FOR DIVERGING ROLL OSKI<br>Lations during vernier solo. | BYSTEM EFFECT-ERRATIC OPERATION. DIVERGING MIBBILE MOLL RATE DURING VERMIER BOLO POBSIBLY CAUSED BY COMBINATION OF<br>Larger than normal dead zone, high hydraulic pressure (mithin tolerance) and migh verhier engine bindal friction. |                      |                            | A-SH-D4-B302F<br>ACTUATOR ABBENELY | FAILUME MODE-OUT OF TOLEKANCE. BERVOCYLINDER DID MOT REBPOND TO A MALLIMB BIBMAL, MALL-CURRENT FOUND EXCEBBIVE DUE<br>To inproper adjustment technique during factory assembly and checkout. | CORRECTIVE ACTION-VERNIER BEHVOCYLINDER RECEIVING INSPECTION ACCEPTANCE TEST PROCEDURE EOP 305.0 REVISED SE0717 (RE<br>VISION E) TO INCLUDE STEP BY SIEP NULL ADJUITNENT PROCEDURES. |
|                                               | SYSTEM<br>CUB-SYSTEM                        | HTDRAULIC-A/B<br>BUSTAINER/VERNIER         | FAILURE MODE-LEAR-EXTER<br>MORE 100D 936 STATIC CO<br>S WHICH IN TURN RESULTED                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | CORECTIVE ACTION-SALES                                                                                                                | HYDRAULIC-A/B<br>BUSTAINER/VERNIER          | FAILURE HOUT-LEAK-ENTER                                                            | CORRECTIVE ACTION-VENDO                                                                                | HYDRAULIC-A/B<br>BUSTAINER/VERNIER              | FAILURE MOE-OUT OF TOLERANC<br>LLATIONS DURING VERNIER SOLO.                                                                                       | SYSTEM EFFECT-ERRATIC OLARGER THAN NORMAL DEAD                                                                                                                                                                                          | WENTELE EFFECT-NONE. | CORRECTIVE ACTION-UNKNOWN. | HYDRAUL (C-A/3<br>Bubtainer/Verier | FAILURE MODE-OUT OF TOL. TO IMPROPER ADJUSTMENT T                                                                                                                                            | CORRECTIVE ACTION-VERNA                                                                                                                                                              |

GENERAL BYNAHICS CONVAIR BIVISION

13 JUN 1966

|   |                                                                                 | DIFFICULTIES REVIEW-HYDRAULIC SYSTEM-AIRDONNE                                                                                                                                                                                                                                                                              | AULIC STSTEN-AIRBORN                                          |                       |             |                                             |                                        |                                        |
|---|---------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------|-----------------------|-------------|---------------------------------------------|----------------------------------------|----------------------------------------|
|   | SUB-STEN                                                                        | TEST/REPORT NUMBER<br>FAILED COMPONENT NAME                                                                                                                                                                                                                                                                                | DIF DATA SOURCE<br>PART NUMBER                                | VEHICLE<br>DATE DIF   | 11 PE 11 PE | 9 P. E. E. E. E. E. E. E. E. E. E. E. E. E. | VENDOR HANE<br>VENDOR PART NO          |                                        |
|   | HTORAULIC-A/B<br>BUSTAINER/VERNIER                                              | A-98-10-103F<br>DISCOMMECT, BTAGING                                                                                                                                                                                                                                                                                        | FAR<br>27-08550-3                                             | 620423                | A 13        | 58                                          | YES PEACOCK EMS. C<br>MO O.<br>51290-3 | :                                      |
|   | FAILURE MODE-EXTERNAL L. CORRECTIVE ACTION-8.C.                                 | FAILURE MODE-EXTERNAL LEAK-OIL LEARAGE DUE TO O-RIMS BEING DAMAGED BY SMARP EDGE IN MATING MALF.<br>Corrective action-8.C. Notified to improve the method of testing the discondets. Vendor notipied to remove smarp ed                                                                                                    | DAMAGED BY SMARP EDG                                          | E IN MATE             | NE HALF.    | 5                                           | HOVE SHARP ED                          |                                        |
|   | HTDRAULIC-A/B<br>BUSTAINER/VERNIER                                              | 5P-9D-04-3287F<br>ACTUATOR, O-RIM6                                                                                                                                                                                                                                                                                         | FAR<br>27-08573-1                                             | 660460                | a P         | 20                                          | YES INTERSTATE ENG-<br>NO R.<br>870E-1 | •                                      |
|   | FAILURE HODE-LEAK EXTER<br>KACE WAS DUE TO BADLY NO<br>ON BACKUP AND O-RING TO  | FAILUKE HODE-LEAK EXTERNAL-ACTUATOR WAS REJECTED FROM POINT ARGUELLO LAUMCH COMPLEX 1 FOR LEAKAGE AT 3000 PSIG. LEA<br>Kage was due to badly worn o-rines and teplon backups, pailure has calsed by out of round pistom lands allowing tepl<br>On backup and o-ring to extrude into area between piston and cylinder bore. | ARGUELLO LAUNCH CON<br>RE NAS CAUSED DY OUI<br>CYLINDER BORE. | PLEX 1 FO             | PISTON      | A 44 4                                      | ALLOWING TEPL                          | ······································ |
|   | CORECTIVE ACTION-INTER                                                          | CORRECTIVE ACTION-INTERSTATE MAS BOUGHT OUT BY LIGNEL PACIFIC WOSE ACTUATORS MANE NOT BEEN FOUND TO MANE THIS PROB<br>EM. INTERSTATE ACTUATORS WILL BE REPLACED AT TINE OF PAILURE OR WHEN BERVICE LIFE EXPIRES.                                                                                                           | IC WOSE ACTUATORS H<br>E OR WEN BERVICE LI                    | AVE NOT B             | EEN POUN    | 5                                           | IAVE THIS PROS                         |                                        |
|   | HYDRAULIC-A/B<br>BUSTAINER/YERNIER                                              | A-80-10-135C<br>Bustainer mydraulic Pune                                                                                                                                                                                                                                                                                   | FAR<br>ET-06590-B                                             | 136                   | <b>8</b>    | ž ĝ                                         | VICKERS<br>AA-60410-L-E                | :                                      |
|   | FAILURE MODE-LEAR EXTER CORRECTIVE ACTION-UNIT                                  | FAILUME MODE-LEAR EXTERNAL. HYDRAULIC OIL LEARED PROM THE POTTOM PLATE AT THE RADIATION SMIELD.<br>CORRECTIVE ACTION-UNIT WAS LOST. 8D/C ADVISED COGNIZANT PERSONNEL TO WERIFT LEARAGE PRIOR TO REMOVAL OF FUTURE COMP                                                                                                     | OTON PLATE AT THE A                                           | MOLATION<br>MAGE PRIO | HIGGS.      | OMAL OF                                     | of Putuan com-                         |                                        |
|   | HYDRAULIC-A/B<br>BUSTAINER/VERMIER                                              | AERE-0318/B3-401-00-129<br>ACTUATOR ASSENDLY                                                                                                                                                                                                                                                                               | FLIGHT<br>E7-05314-010                                        | 1290<br>920411        | 20          | 758 (1,                                     | LIA - PACIFIC                          | ;<br>;                                 |
| 8 |                                                                                 | FAILURE MODE-OUT OF TOLERANCE. THE BUSTAINER YAM ACOUATOR LENGTH APPEARED TO DE ADJUSTED TO THE UROUS LENGTH, BALED ON ANALYSIS OF BYSEM PERFORMANCE DURING PLIGHT.                                                                                                                                                        | ENGTH APPEARED TO BE                                          | C ADJUSTED            | 10 TAT      | \$<br>5                                     | LEWETH, BABED                          |                                        |
|   | VEHICLE EFFECT-MONE, TH<br>TRANSIENT WAS PRESENT AT<br>O A MOSE-LEFT ACCELERATE | VEHICLE EFFECT-NOME. THE BUSTAINER EMBINE EMISITED A YAM OFFSET FROM WALL FOSITION. A SMALL COUNTERCLOCKWINE ROLL<br>Transient was present at liftopp instead of the Mymmal Clockwise Transient, at 8008754 cutofp the Missile Emperience<br>D a mose-left acceleration due to the Bustainer van. Plient Buccessful.       | FFSET FROM MALL POB!<br>MISE TRANSIENT, AT 6<br>SUCCESSFUL.   | 1710N. A B            | TOFF THE    | MTERC<br>MI 88                              | LOCKWINE ROLL                          |                                        |

CORRECTIVE ACTION-NOME.

GENERAL DYNAMICS

**1** 0

1901 NOT 61

| ¥        |
|----------|
| 181      |
| NI NI OF |
| =        |
| COMAIR   |
| J        |
|          |
|          |

| PUBLICATION OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF |   | 3151EH<br>316-3131EH                                                                                | TEST/REPORT NUMBER<br>FAILED COMPONENT NAME                                                                    | DIF DATA BOURCE<br>PART NUMBER                                       | WEMICLE<br>DATE DIF                     |                                   | - I                                       | BITE PRI VENDOR MANE<br>TIME DIP OTH VENDOR PART NO | <b></b> |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|-----------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|-----------------------------------------|-----------------------------------|-------------------------------------------|-----------------------------------------------------|---------|
| PRILINGE WOLL-ENTERNAL LEAK. EXCESSIVE LEARAGE PAST ONE OF THE PISTON SEALS. THE PAILUNE WAS CONTINUED. THE LEAK WAS AND ONE TO C-RIGH FALLUNE CAUSED BY FOOM BUILTY BOAM -N MATERIAL WHICH REPAIRS IN ACCELENTED O-RING STANDOMS.  COMMECTIVE ACTION-UP, CHAS INFORMED THE VENDEN OF THE RESALTS OF THIS AMALTSIS AND HAS RESULESTED THAT HE CORRECT AN WILL-25732A. LEEF RAS A 89-U4-710). TESTS OF VENDEN O-RINGS UND 1N HYDRALIC ACTUATORS HERT THE RESULTS OF THIS AMALTSIS AND HAS RESULESTED THAT HE CORRECT AN WILL-25732A. LEEF RAS A 89-U4-710). TESTS OF VENDEN O-RINGS UND 1N HYDRALIC ACTUATORS HERT THE RESULTS OF WILL-25732A. LEEF RAS A 89-U4-710). TESTS OF VENDEN O-RINGS UND 1N HYDRALIC ACTUATORS HERT THE RESULTS OF WILL-25732A. LEEF RAS A 89-U4-710). TESTS OF VENDEN O-RINGS UND 1N HYDRALIC ACTUATORS HERT THE RESULTS OF WILL-25732A. LEEF RAS A 89-U4-710). TESTS OF VENDEN O-RINGS UND 1N HYDRALIC ACTUATORS HERT THE RESULTS OF RESULTS OF REPORTS OF THE THE INTERPACE OF THE THOMALY HYDRALIC ACTUATORS HERT THE TOWN O-RINGS UND 1N HYDRALIC ACTUATORS HERE WERE-ESTERNAL LEAK-OIL METANGE AT THE INTERPACE OF THE THOMALY HYDRALIC ACTUATORS HAS A 48-10-10-10-10-10-10-10-10-10-10-10-10-10-                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |   | 7                                                                                                   | A-BB-04-3178F<br>ACTUATOR ASSEMBLY, O-RING                                                                     | FAR<br>E7-83311-807                                                  | 1310                                    | CONVAIR                           | 50                                        | LENCO AERO PR<br>DUCTS.                             |         |
| CORRECTIVE ACTION-GOTCHAS INFORMED THE VENDOR OF THE REBULTS OF THIS ANALYSIS AND HAS REQUESTED THAT HE CORRECT AN IN-SCREEN HIS GALLING ASSURED THE SEQUENCE HIS GALLING CORRECT AND THE CORRECT AND THE REQUIREMENTS OF NIL-R-257324. THAT OFTIMES DO MEET PROCEEDINGS TO ASSURE THAT OFTIMES DO MEET PROCEEDINGS THE RESULT OF THAT OFTIMES DO MEET PROCEEDINGS.  WILL-257324. HEF RRA A 89-04-710). TESTS OF VENDOR OFTIME STOCK IN METERIALS 1882 REVELL THAT OFTIMES DO MEET PROCEEDINGS.  WICH THAT OF THE REFORMENT OF THE INTERFACE OF THE THO MALVES OF THE VALVE BODY. FAILURE WAS CAUSED BY DOOR QUALITY OR NIGH.  FAILURE MADE COTTON TO A THE INTERFACE OF THE THO MALVES OF THE VALVE BODY. FAILURE WAS CAUSED BY DOOR QUALITY OR NIGH.  CORRECTIVE ACTION-VENDOR WAS INFORMED OF APPROPRIATE B.C. ON THE O RINGS PURCHASED.  FAILURE MADE CORRECTIVE ACTION-VENDOR WAS INFORMED TO IMPROVE HIS B.C. IN MANAFACTURE, ALSO A MEN TOOL WAS MADE TO ELIMINATE HAS CAUSED BY THE POOR OFTIME AS CAUSED BY THE POOR OFTIME AS CAUSED BY ACCOUNTER A ACCOUNTING CARRET LINE.  FAILURE AND TOOL WAS MADE ACCOUNTING FAIRE B.C. IN MANAFACTURE, ALSO A MEN TOOL WAS MADE TO ELIMINATE HAS WITCHAS YELD TO A THAT ACCOUNTING CARRET LINE.  FAILURE AND TO ELIMINATE HAS ACCOUNTED TO A MENTAL ACCOUNTING CARRET BY ACCOUNTING COMMAND ACCOUNTING WAS ACCOUNTED TO A STACK OF THE PARKET LINE.  FAILURE AS ACCOUNTING CARRET LINE ACCOUNTAGE LINE.  FAILURE AS ACCOUNTING CARRET LINE ACCOUNTAGE LINE.  FAILURE AS ACCOUNTING CARRET LINE ACCOUNTAGE LINE.  FAILURE AS ACCOUNTING CARRET LINE ACCOUNTAGE LINE.  FAILURE AS ACCOUNTING CARRET LINE ACCOUNTAGE LINE.  FAILURE AS ACCOUNTING CARRET LINE ACCOUNTAGE THAT THE PARKET LINE ACCOUNTING WAS ACCOUNTED TO A THE PARKET BY ACCOUNTING BOTH ACCOUNTS ACCOUNTED THAT ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS.                                                                                                                                                                                                                                 |   | FAILURE MODE-EXTERNAL LE<br>APPROXIMATELY ONE DROP P<br>R MAS DUE TO CHRIME FAILL                   | EAK. EXCESSIVE LEARAGE PAST ONE OF<br>Per six cycles. The maximum alloma<br>Ume caused by Poor Quality Buma -m | THE PISTON SEALS. T<br>BLE IS ONE DROF FOR<br>NATERIAL WHICH RESU    | ME PAILUME<br>EVERT THEN<br>LTED IN AC  | MAS CONF<br>IY FIVE (             | 18.55.<br>P. C.C.                         | THE LEAK MAS<br>CLES. THE LEA<br>F BREAKDOMM.       |         |
| HYDRALLICAYD A-88-10-104F FAR 87-0858-1 GEDSE NO A-81073 SUSTAINER/YERNAL LEAR-OIL SEEPAGE AT THE INTERFACE OF THE THO HALVES OF THE VALVE BODY. FAILURE MAS CAUSED BY DOOR QUALITY O RISE.  CORRECTIVE ACTION-YERNAL LEAR-OIL SEEPAGE AT THE INTERFACE OF THE THO HALVES OF THE VALVE BODY. FAILURE MAS CAUSED BY CORRECTIVE ACTION-YERNAL LEAR-OIL SEEPAGE AT THE COMPENSATOR FLANCE, AND THE PASP CUTLET FLANGE. PAILURE WAS CAUSED BY FAILURE MCCENTER AND SCALCHES ON THE FITTING BEVEL.  CORRECTIVE ACTION-YESODOR MAS INFORMED TO IMPROVE HIS 8-C. IN MANUFACTURE, ALSO A MEN TOOL WAS MADE TO ELINIMITE MIS INTERALLICANS  WITHOUT CANAL CANAL ASSESSION OF ASSESSION OF PAINT OF THE MASS CONVAIR  WITHOUT CANAL CANAL ASSESSION OF ASSESSION OF THE PAILURE WAS CONVAIR  WITHOUR CANAL CANAL ASSESSION OF ASSESSION OF THE PASP CONTEST PLANGE. PAILURE WAS COUNTEST AND SCHOOL OF THE PAILURE WAS COUNTEST AND SCHOOL OF THE PASS CONVAIR ASSESSION OF THE PASS CONVAIR ASSESSION OF THE PASS CONVAIR ASSESSION OF THE PASS CONVAIR ASSESSION OF THE PASS CONVAIR ASSESSION OF THE PASS CONVAIR ASSESSION OF THE PASS CONVAIR ASSESSION OF THE PASS CONVAIR ASSESSION OF THE PASS CONVAIR ASSESSION OF THE PASS CONVAIR ASSESSION OF THE PASS CONVAIR ASSESSION OF THE PASS CONVENTION OF THE PASS CONVAIR ASSESSION OF THE PASS CONVENTION OF THE PASS CONVENTION OF THE PASS CONVAIR ASSESSION OF THE PASS CONVENTION  |   | COGRECTIVE ACTION-40/C PD IMPROVE HIS GUALITY CON NIL-P-25732A. (REF RAR A CUREMENT SPECIFICATIONS. | HAS INFORMED THE VENDOR OF THE RESIDENCE PROCEDURES TO ASSURE THAT ON A 89-04-710). TESTS OF YENDOR OFRE       | ULTS OF THIS AMALYSI<br>RINGS USED IN HYDRAU<br>NG STOCK IN SEPTEMBE | B AND MAS<br>LIC ACTUATOR<br>R 1842 REV | REQUESTED<br>ONS MEET<br>EAL THAT | THAT I                                    | HE CORRECT AN<br>BUINEMENTS OF<br>S DO MEET PRO     |         |
| FAILURE M.DE-EXTERNAL LEAR-OIL SEEPAGE AT THE INTERFACE OF THE THO MALVES OF THE VALVE BODY. PAILURE HAS CAUSED BY CORRECTIVE ACTION-VEDOCA WAS INFORMED OF APPROPRIENTE B.C. ON THE O MINGS PURCHASED.  HTD MALLIC-A.D  A -06-10-102F BUSTALLIC-A.D  BUSTALLIC-A.D  A -06-10-102F BUSTALLIC-A.D  A -06-10-102F BUSTALLIC-A.D  A -06-10-102F BUSTALLIC-A.D  A -06-10-102F BUSTALLIC-A.D  A -06-10-102F BUSTALLIC-A.D  A -06-10-102F BUSTALLIC-A.D  A -06-10-102F BUSTALLIC-A.D  A -06-10-102F BUSTALLIC-A.D  A -06-10-102F BUSTALLIC-A.D  A -06-10-102F BUSTALLIC-A.D  A -06-10-102F BUSTALLIC-A.D  A -06-10-102F BUSTALLIC-A.D  A -06-10-102F BUSTALLIC-A.D  A -06-10-102F BUSTALLIC-A.D  A -06-10-102F BUSTALLIC-A.D  A -06-10-102F BUSTALLIC-A.D  A -06-10-102F BUSTALLIC-A.D  A -06-10-102F BUSTALLIC-A.D  A -06-103F BUSTALLIC-A.D  A -06-103F BUSTALLIC-A.D  A -06-103F BUSTALLIC-A.D  A -06-103F BUSTALLIC-A.D  A -06-103F BUSTALLIC-A.D  A -06-103F BUSTALLIC-A.D  A -06-103F BUSTALLIC-A.D  A -06-103F BUSTALLIC-A.D  A -06-103F BUSTALLIC-A.D  A -06-103F BUSTALLIC-A.D  A -06-103F BUSTALLIC-A.D  A -06-103F BUSTALLIC-A.D  A -06-103F BUSTALLIC-A.D  A -06-103F BUSTALLIC-A.D  A -06-103F BUSTALLIC-A.D  A -06-103F BUSTALLIC-A.D  A -06-103F BUSTALLIC-A.D  BUSTALLIC-A.D  A -06-103F BUSTALLIC-A.D  BUSTALLIC-A.D  A -06-103F BUSTALLIC-A.D  BUSTALLIC-A.D  A -06-103F BUSTALLIC-A.D  BUSTALLIC-A.D  BUSTALLIC-A.D  BUSTALLIC-A.D  BUSTALLIC-A.D  BUSTALLIC-A.D  BUSTALLIC-A.D  BUSTALLIC-A.D  BUSTALLIC-A.D  BUSTALLIC-A.D  BUSTALLIC-A.D  BUSTALLIC-A.D  BUSTALLIC-A.D  BUSTALLIC-A.D  BUSTALLIC-A.D  BUSTALLIC-A.D  BUSTALLIC-A.D  BUSTALLIC-A.D  BUSTALLIC-A.D  BUSTALLIC-A.D  BUSTALLIC-A.D  BUSTALLIC-A.D  BUSTALLIC-A.D  BUSTALLIC-A.D  BUSTALLIC-A.D  BUSTALLIC-A.D  BUSTALLIC-A.D  BUSTALLIC-A.D  BUSTALLIC-A.D  BUSTALLIC-A.D  BUSTALLIC-A.D  BUSTALLIC-A.D  B |   | HYDRAULIC-A/D<br>SUSTAINER/YERNIER                                                                  | A-B4-10-104F<br>HTDRAILIC RELIEF VALVE O-RIMG                                                                  | FAR<br>27-00368-1                                                    | 335<br>40373                            | <b>8</b> 7C.                      | TES V                                     | 1N3OH<br>-61071                                     | •       |
| HYDIALLICAND AND INCOMED TO INPROVE HIS B.C. IN NAMERACULICAND AND HEVE TOOL WAS MADE TO ELIMINATE HIS BENEL.  COMECTIVE ACTION-VENOUR MAS INFORMED TO INPROVE HIS B.C. IN NAMERACTURE, ALSO A NEW TOOL WAS MADE TO ELIMINATE HIS BUSINESS AND ACCOUNTS AND ACCOUNTS OF THE PROPERTY OF THE PROPERTY ALSO A NEW TOOL WAS MADE TO ELIMINATE HIS BUSINESS AND ACCOUNTS OF THE PROPERTY ACCOUNTS AND ACCOUNTS OF THE PROPERTY ACCOUNTS AND ACCOUNTS OF THE PROPERTY ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCOUNTS ACCO |   | FAILWE MOE-EXTERNAL LE<br>DOOR QUALITY O RISE.                                                      | EAK-OIL MEPAGE AT THE INTERPACE OF                                                                             | THE THO MALWES OF                                                    | THE VALUE                               | MOV. FAL                          | 7                                         | AS CAUSED BY                                        |         |
| SUSTAINER/VERNIE FAILURE MODE-E THE POOR O-RIN CORECTIVE ACT INSTALLED INSER HYDRAULIC-A/B BUSTAINER - VERNIE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |   | HTDIAULIC-A/B                                                                                       | A-06-10-102F                                                                                                   | FAR                                                                  | 106030                                  | <b>3</b> 7C.                      | 76.8 V                                    | ICKERS                                              | 3       |
| CORRECTIVE ACT<br>INSTALLED INSER<br>HYDRAULIC-A/B<br>BUBLAIMER 'VERHIE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |   | BUSTAINER/VERNIER FAILURE MUE-EXTERNAL LE THE POOR O-RIMES AND BER                                  | HYDRAULIC PUMP, O-RING<br>EAK-OIL BEEPAGE AT THE COMPENSATOR<br>RATCHER ON THE PITTING BEVEL.                  | E7-0850-3<br>FLANGE, AND THE PUR                                     | P WILET FI                              | LANGE. PA                         | 5 2 2 1 1 2 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 | M. CAUSED DY                                        |         |
| HYDRAULIC-A/B AEGE-GO76/01-504-00-66 PLIGHT 66E CATF-1 NO BUSTALMER ACCUMULATOR CHARGE LINE 6EGES 181 NO                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |   | CORECTIVE ACTION-VENDOR                                                                             | R MAB IMPORMED TO IMPROVE HIS G.C.                                                                             | IN MANUFACTURE, ALB                                                  | 0 A MEW TO                              | * *                               | <b>5</b> 0                                | ELIMINATE NIS                                       |         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | _ | HYDRAULIC-A/B<br>BUBIAINCA VERMICA                                                                  | AE62-5076/01-904-00-66<br>ACCUMULATOR CHARGE LINE                                                              | PLIMI                                                                | \$2.20 <b>5</b>                         | 081F-1<br>131                     | l.                                        | D/CONVAIR                                           |         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |   | MECTION FIRE.                                                                                       |                                                                                                                |                                                                      |                                         |                                   |                                           |                                                     |         |

BIBTEN EFFECT-NOME.

SENERAL DYNAMICS CONVAIR DIVISION

į

ί,

| DATE OF THE GIP OF WINDS TARE NO | 207003<br>SCHILLIN 7ES CLEMO AERO PR 800070 |                                                                                                                                                                                                                                                                                                                                | MEDUENT<br>REDURENT                                                                                                                                                                                                                                                                                                                                    | INTERNATE BOTASS                              | AB. TEST<br>NTER HARME                                                                                                                                                                                                                           | ME RICKIN                                                                                                                         | YES LICHEL PACIFIC 887328                 | LEARAGE WAS COSERNED, THE<br>BY EITHER(1) A PIECE OF F<br>THE O-RIM ITSELF DETERIO                                                                                                                                                                                                                                              | 1 |
|----------------------------------|---------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
|                                  | HER CLEK                                    | MO OBUCTS OF THE AC                                                                                                                                                                                                                                                                                                            | EH AND 18<br>EETS THE<br>N REGUEST                                                                                                                                                                                                                                                                                                                     | OF OF                                         | TTENT RICAL STE                                                                                                                                                                                                                                  | INCLEME                                                                                                                           | 765 61046                                 | MS CBS(<br>ER (1) A F<br>ING 113E)                                                                                                                                                                                                                                                                                              |   |
| 2                                | KHILLIM                                     | AKAT AREA                                                                                                                                                                                                                                                                                                                      | HE PROBLI                                                                                                                                                                                                                                                                                                                                              | ATA.                                          | IN ELECTI                                                                                                                                                                                                                                        | CMT BINGTA                                                                                                                        | er I'a                                    |                                                                                                                                                                                                                                                                                                                                 |   |
| 200                              | 26.7                                        | E FROM CUT A<br>SEMBLY REVEL<br>D.                                                                                                                                                                                                                                                                                             | OF THE ORI<br>BUBLECT ACT<br>THE CORRECTI                                                                                                                                                                                                                                                                                                              | , 2330 <b>39</b>                              | AINER DIEIN<br>PEN CIRCUIT                                                                                                                                                                                                                       | D INTERNITY                                                                                                                       | 012030                                    | US AMOUNT OF                                                                                                                                                                                                                                                                                                                    | , |
|                                  | PAR                                         | ACTUATOR ASSEMBLY, O-RING R7-8531E-805 620228 6 NO COUCTS -EXTERNAL THE ACTUATOR MIS COSERVED TO MAVE EXCESSIVE LEARAGE FROM CUT ASAY AREA OF THE ACUTATOR D OF HYDRAULIC SYSTEM FILL AND BLEED PROCEDURE 27-8840E. DISASSEMBLY REVEALED DAMMEL O-RINGS OF SUB- LITY THA! COULD MANE PERMITTED THE EXCESSIVE LEARAGE REPORTED. | 1-60/C RELIABILIT CONTROL ENGINETRING HAS INFORMED THE WENDOR OF THE O RING PROBLEM AND 18 MEBUESTS<br>TE SUALITY CONTROL PROCEDURES TO ASSURE THAT O RINGS USED IN SUBJECT ACTUATORS MEETS THE RESULRENE<br>TO RARS WORTSF-04-884 AND MG-80-04-604, WENDOR COMPLIED WITH CORRECTIVE ACTION RESULST.                                                   | FAR<br>E7-05314-019                           | TIC OPERATION-DURING LOOP TEST UNIT REPORTEDLY GAYE THE SUSTAINER ENGINE INTERNITTENT RICAS. TEST LATOR TO BE SATISFACTORY, INVESTISATION FOLD INTERNITTENT OPEN CIRCUIT IN ELECTRICAL UTSTEN HARME                                              | OF HACHESS ELENINATE                                                                                                              | FAR<br>E7-6331E-605                       | C-EXTERNAL-DURING HYDRAUGIC FILL AND BLEED TESTS, A CONSPICUOUS ANOUNT OF LEARAGE WAS OBSERVED. THUOUSLY UNDER 40 PSIG. THE PALLURE WAS CONTINED. THE LEARAGE WAS CAUSE BY ETHER(1) A PIECE C AFTHE WIPER AND BECOMING LODGED ACROSS ONE OF THE PISTON O-RINGS, OF (2) THE O-RING ITSELF DETE FMIERIAL WAS SUB-ITANDARD.        |   |
|                                  | 3.6                                         | ACTUATOR ASSEMBLY, O-RING L THE ACTUATOR MIS OBSERVED TO ULIC SYSTEM FILL AND BLEED PROC COALD HANG PERMITTED THE EXCE                                                                                                                                                                                                         | NTROL ENGINETRING HA<br>PROCEDURES TO ASSURE<br>4-884 AND HE-88-04-6                                                                                                                                                                                                                                                                                   | MP-BD-G4-308B-F<br>ACTUATOR ASSEMBLY: HARIESS | 6 LOOP TEST UNIT REP<br>CTORT, INVESTIGATION                                                                                                                                                                                                     | CTUATOR- REPLACIDENT                                                                                                              | ABD-04-317EF<br>ACTUSTOR ABSENDATE O-RING | DRAUGIC FILL AND BLE<br>816. THE VAILURE WAS<br>CHIME LODGED ACROSS<br>TANDARD.                                                                                                                                                                                                                                                 |   |
|                                  |                                             | ACTUATOR AS<br>HAL THE ACTU<br>PACULIC STSTES<br>HA" COULD MAY                                                                                                                                                                                                                                                                 | RELIABILIT CC<br>LITY CONFOL<br>RARS WGR-SF-C                                                                                                                                                                                                                                                                                                          | 30-80-04-3089-F<br>ACTUATOR ASSENDE           | TO DE SATISA-                                                                                                                                                                                                                                    | REBUINED ON 1                                                                                                                     | ABD-04-5172F                              | EXTERNAL-DURING HIDRAUGIC. HUDDALT UNDER 40 PRIG. 1MC 1 TMC WIPER AND BECOMING LO MATERIAL MAS BUS-ITANDARD.                                                                                                                                                                                                                    |   |
|                                  | COARECTIVE ACTION-NOME, HIDRAULIC-A/B       | SUSTAINER/VERMIER FAILURE MODE-LEAK-ERTERIURING PERFORMME OF HTDM                                                                                                                                                                                                                                                              | CORECTIVE ACTION-60/C RELIABILIT CONTROL ENGINETRING HAS INFORNED THE WENDOR OF THE O RING PROBLEM AND IS MESUESTS NG THAT HE INSTITUTE SUMLITY COMPOL PROCEDURES TO ASSURE THAT O RINGS USED IN SUBJECT ACTUATIONS MEETS THE RESULRENE HAS OF MILH-P-25732. REF ARRS WAR-SF-64-884 AND MG-NG-64-464. WENDOR COMPLIED WITH CORRECTIVE ACTION RESULEST. | HVDRAULIO-A/B<br>BUBTAINER/VERNIER            | FAILUKE MOSE-ERRATIC OPERATION-DURING LOOP TEST UNIT REPORTEDLY GAYE THE SUSTAINER ENSINE INTERNITTENT RICAS. TEST<br>ASSULTS MICHED ACTUATOR TO BE SATISFACTORY, INVESTIGATION FOUND INTERNITTENT OPEN CIRCUIT IN ELECTRICAL STREEN HARM<br>SS. | CONSECTIVE ACTION NOWE REQUIRED ON ACTUATOR- REPLACEMENT OF HAINEBY ELINIMATED INTERNITTENT BUSTAINER EMSINE NICKIN<br>6 PRODUCH. | HYGGAULIC-A/B<br>Bublathea/Yerhier        | FAILURE MODE-LEAR-ERTERNAL-DURING MYDRAUGIC FILL AND BLEED TEATS, A COMSPICUOUS AMOUNT OF LEAR OF SELVENCE CONTINUOUSLY UNDER 40 PSIG. IMC PAILURE MAS CONFIRMED. THE LEARAGE MAS CAUSE ELY SERARITHE FROM THE WIPER AND BECONTHE LODGED ACADES ONE OF THE PISTON O-RIMES, OF 18) RATING, THE O-RIME MATERIAL MAS SUS-STANDARD. |   |

CONTAIN DIVISION

\*\*\*\*\*\*\*\*\*

| 9941 457 41                                                                                                                       | DIFFICUATIES REVIEW-HYDRAULIC STRIEM-AIRSORME                                                                                                                                                                                                                                                                                                                                                     | MAULIC SYSTEM-AIRSON                                                 | ¥                   |                                                  |                                                                     |       |        |
|-----------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|---------------------|--------------------------------------------------|---------------------------------------------------------------------|-------|--------|
| 8787EN<br>848-8787EN                                                                                                              | TESTARPOST HUNGER<br>FALCE COMPOSENT NAME                                                                                                                                                                                                                                                                                                                                                         | B-F BATA BOUNCE<br>PART MANBER                                       | WENICLE<br>DATE BIP | 31.16                                            | WHICLE SITE PR: WINDOR MANE<br>DATE BIF TIME BIF OTH VENDOR PART NO | ¥-    |        |
| HTD4AULIC-A/B<br>BUBTAINGA/VENIER                                                                                                 | A-88-04-3185F<br>ACTUATOR ASSEMBLY, 0-6186                                                                                                                                                                                                                                                                                                                                                        | 744<br>87-61311-307                                                  | 913036              | E                                                | ON                                                                  | 2141  |        |
| PAILURE MODE-LEAK-ERTERMAL, I<br>EARING PROM A RACK GLANG OF TH<br>ME FAILURE COACH NOT BE COMFIL<br>CAUNED THE REPORTED FAILURE, | FAILURE MODE-LEAK-ERTERMEL, DUF ME FACT, PROCEDURE BT-SOSSO-BR- IC, A FINE STREAM OF WTBRANKIC FLUID WAS DETECTED L<br>EARING FROM A RACK GLAND OF THE VERHIER B FITCH BERVOTTLINDER, LIZARNE OCCURROD IN BOTH STATIC AND DYMNIC STATES. T<br>ME FAILURE COALD NOT BE CONTINED. THE CONDITION OF THE O-RIMSS INDICATED THAT DELOW BPECIFICATION MATERIAL MAY HAVE<br>CAUNED THE REPORTED FAILURE. | 20-56- IC, A FINE BIN<br>261. LIARAG OCCUMOD<br>IIMA (MDICATED THAT) |                     | AMELIC PLOATION                                  | ID MB BETECT<br>DYMING BTATE<br>BDTERIAL MAT                        | 3 - ¥ |        |
| CORRECTIVE ACTION-BAN<br>BY THE VEHICOR HELET THE                                                                                 | CORRECTIVE ACTION-SAR A-88-04-710 HAS BEEN MITTEN MEQUESTING THAT ACTION BE TAKEN TO ENGUNE THAT THE O-SIMSS UMED<br>I THE VEHOOR HEET THE REGULAEMENTS OF HIL-P-ESTIGA. THE VEHOOR HAS INFORMED.                                                                                                                                                                                                 | TING THAT ACTION BE TO                                               | MG 64 4571          | <b>78</b> 74 74 74 74 74 74 74 74 74 74 74 74 74 | THE O-81166 U                                                       | ş     |        |
| MTD4AULIC-A/B<br>BustingR/VERNIER                                                                                                 | A-80-10-1017<br>H7DRALLIC PAP. O-8186                                                                                                                                                                                                                                                                                                                                                             | FAR<br>87-06390-3                                                    | 112020              | Ę                                                | TES VICACAS<br>TO AA-60410-L-8                                      |       | •      |
| PAILUPE MOE-ENTERMA                                                                                                               | FAILUPE MOG-ETTERMAL LEAK-OIL BEFRIE AT THE PLAMES. PAILURE WAS CAURED BY POOR SUMLITY O RIMES.                                                                                                                                                                                                                                                                                                   | . PAILURE UNS CAUBED                                                 | 20 F                | 0 1114                                           | 11166.                                                              |       |        |
| CORRECTINE ACTION- WE                                                                                                             | CORECTINE ACTION-WENCOR HAS INSTRUCTED TO INVESTIGATE AND CORRECT THE POOR O RINGS. THE NEW LAT TEST PROCEDURE ALL ONE A SHALL AND MINES. THE NEW LATER THEST PROCEDURE ALL.                                                                                                                                                                                                                      | CORRECT THE POOR O !                                                 | lines. The          | EN IAT                                           | EST PROCEDURE                                                       | 11    |        |
| MYDRAULIC-A/B<br>BUSTAINER/VERNIER                                                                                                | HE-/ 8-04-3117F<br>ACTATOR ASSEMLY                                                                                                                                                                                                                                                                                                                                                                | FAR<br>27-66311-9                                                    | 603030              | FACTORY                                          | VES INTERSTATE<br>NO                                                |       | 007730 |
| FAILUME MCE-STAUCTUM<br>ED DT INTERSTATE EMG.                                                                                     | FAILUME MIGE-STRUCTURAL. SERVO VALVE MAT REJECTED BECAUSE OF DRIF ING-AMALTRIB SMONED THAT CPLIMPER BODY MANUFACTUR<br>ED BY INTERSTATE EMS. DID MOT MANG AM ADCRUMITE CUTOUT FOR A TRANSDACER PROBE BUFFORT.                                                                                                                                                                                     | OF DRIF INS-AMALTSIS                                                 | MODEL IN            | r celiar                                         | A BOBY MANUFA                                                       | 5     |        |
| CORRECTIVE ACTION-A L                                                                                                             | CORRECTIVE ACTION-A BURNET WAS MUST TO MAKE CERTAIN THA! ALL CYLINGERS MAVE PROPER CUPONT.                                                                                                                                                                                                                                                                                                        | ILL CYLINDERS MAYE PRO                                               | OPEA CUTOUT         | •                                                |                                                                     |       |        |
| HTDERLIC-A/B<br>BUSTAINER/VERIER                                                                                                  | MACTUATOR ASSESSATE O-1316                                                                                                                                                                                                                                                                                                                                                                        | 7AA<br>27-68511-8                                                    | 73.6                | <b>§</b>                                         | TES INTERSTATE COS OSSOSSINO .                                      | ž     |        |
| FAILURE HODE-LEAK ERI                                                                                                             | PAILUME MODE-LEAK EXTERNAL-LEAKAGE PAST O-RING MEALS.                                                                                                                                                                                                                                                                                                                                             |                                                                      |                     |                                                  |                                                                     |       |        |
|                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                      |                     |                                                  |                                                                     | _     |        |

CONTECTIVE ACTION-50/C WORKING WITH WENDOR TO IMPROVE RELIABILITY OF O-RING MATERIAL.

GENERAL DINANICA CONVAIR DIVISION

1

|                                                  | DIFFICULTIES REVIEW-HTDRAULIC STEW-AIRSONE                                                                                                                                                      | TORAULIC BY STEN-AIRBO                         |                     | -                              |                                       |      |
|--------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|---------------------|--------------------------------|---------------------------------------|------|
| 818-828<br>808-8188                              | TESTARFORT HUBER FAILED COMPONENT NAME                                                                                                                                                          | DIF DATA SOURCE                                | VEHICLE 1           | TINE BIF OTH WE                | PRI VENDOR NAME<br>OTH VENDOR PART NO | •    |
| MTDAAULIC-A/B<br>Bustainer/Verier                | A-88-10-088F<br>HTDRAULIC ACCUMULATOR, O-RIME                                                                                                                                                   | FAR<br>27-06551-3                              | 620126              | 76 8 PE                        | PEACOCH<br>\$1363-3                   | •    |
| PAILUME MODE-INTERNAL<br>DEFECTIVE O RIMG.       | ERMAL LEAK. PRECHARGE OF GAS LEAKAGE ACHOSS THE PISTON INTO THE MYDRAULIC SYSTEM. FAILURE DUE TO A                                                                                              | 048 THE PISTON INTO 1                          | ME MYDRAULIC 8      | 17876M. FAILL                  | AC DUE TO A                           |      |
| CORRECTIVE ACTION-VEN                            | CORRECTIVE, ACTION-VENDOR WAS HOTIFIED ABOUT POOR O RIMED. REPLY HAS THAT ALL O RIMES USED WERE CERTIFIED TO MEET TH<br>REQUIRED HIL SPECS.                                                     | , REPLY WAS THAT ALL                           | O AINGS UBED N      | ERE CERTIFIE                   | D 10 MEET 1M                          |      |
| HTDRAULIC-A/B<br>BUSTAINER/VERNIER               | Af 42-0071/83-401-00-13£                                                                                                                                                                        | 75.54                                          | 1320 63<br>620123 0 | 20                             |                                       | •••• |
| FAILURE MODE-ERRATIC                             | NATIC OPERATION. SUSTAINER/VERMIER HTDMANLIC PRESSURE WAS UNSTABLE FOR THE FIRST 35 SECONDS OF PLIEM<br>TART TRANSTENT. PRESSURE DISMLATED SIME" LIKE OSCILLATION (210 PSIG P"P MAX AMPLITUDE). | LIC PRESSURE WAS UNST<br>LIKE ORCILLATION (230 | ABLE FOR THE P      | 1887 35 BECC<br>AMPL 1 TUDE) . | NOS OF PLIES                          |      |
| STATEM EFFECT-NOVE.                              |                                                                                                                                                                                                 |                                                |                     |                                |                                       |      |
| VEHICLE EFFECT-NOME.                             |                                                                                                                                                                                                 |                                                |                     |                                |                                       |      |
| CORRECTIVE ACTION-UNKNOWN.                       | NOM.                                                                                                                                                                                            |                                                |                     |                                |                                       |      |
| HTDGAULIC-A/8<br>BUSTAINER/VERNIER               | A-66-10-097F<br>HTDRAULIC PUPP, SEAL                                                                                                                                                            | FAR<br>R7-08380-1                              | 420117 BYC.         | ž č                            | VICKERS<br>AA-60401-L-2               | •    |
| FAILURE MODE-EXTERNAL<br>RIZED DUE TO CUT AND DI | ERMAL LEAK-OIL BEIPAGI AT THE DRIVE- BHAFT BEAL. 37 HAS CONCLIDED THAT THE PURP CASE WAS OVERPRESSU<br>AND DAMMEED PART OF ALAL.                                                                | FT BEAL. SF HAIB CONCL                         | LOCO THAT THE       | PLAN CASE NA                   | S OVERPRESSU                          |      |
| COPRECTIVE ACTION-11                             | COPPECTIVE ACTION-17 WAS REGLESTED THAT MORE STRICT TESTING PROCEDURES BY EMPLOYED TO ELIMINATE LEAKING PUMPS.                                                                                  | INF PROCEDURES BY EN                           | LOTED TO ELIM       | MATE LEAKING                   | Puers.                                |      |
| MYGRAULIC-A/B<br>BUBTAIMER/YERMIER               | A-9M-04-8105F<br>ACTUATOR ASSENDEN                                                                                                                                                              | FAR<br>17-83312-803                            | 18F 5AFB            | S Q                            | CLENCO AERO PR                        | -    |
| PAILIME MOG-LEAR EXT                             | R EXTERNAL-EICESSIVE NEAR OF PISTON GLANDS, O-RINGS, AND CYLINGER BONES.                                                                                                                        | 38. O-RIMES, AND CYLI                          | KOER BORES.         |                                |                                       |      |
| CORRECTIVE ACTION-6.                             | COMPECTIVE ACTION-64. " MAD INCORPORATED CHROME PLATING OF PISTONS AND CYLINGER BORES. THESE PARTS ARE DESIGNATED BY                                                                            | PERTONS AND CYLINGS                            | A BOAGS. THESE      | PARTS ARE                      | ESISHETED R7                          |      |

GENERAL BYNAMICS CONVAIN BIVISION

| 9901 907 61                                                                    |                                                                                                                                                                                                                                                               |                                                  |                     |                       |        |                               |                                           |                                         |
|--------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|---------------------|-----------------------|--------|-------------------------------|-------------------------------------------|-----------------------------------------|
|                                                                                | DIFFICUATION REVIEW-                                                                                                                                                                                                                                          | DIFFICULTIES REVIEW-WIDMALIC SYSTEM-AIRSONNE     | ¥                   |                       |        |                               |                                           |                                         |
| <br>#31.616<br>#31.616                                                         | TEST/REPORT NUMBER<br>FAILED COMPONENT NAME                                                                                                                                                                                                                   | DIF DATA SOURCE<br>PART HUNGER                   | WENICLE<br>DATE DIP | 811E PR1              | # O    | VENDOR KANE<br>VENDOR PART NO | 7 - 4 - 6 - 6 - 6 - 6 - 6 - 6 - 6 - 6 - 6 |                                         |
| <br>######################################                                     | H6-88-04-3101F<br>ACTUATOR ABSENDET: 0-41N6                                                                                                                                                                                                                   | FAR<br>E7-05311-8                                | 961039              | £18                   | 5 8    | TES INTERSTATE ENG-           | 7. CH                                     | 3                                       |
| <br>PAILURE MODE-LEAR ERTER                                                    | R ERITRIMIC-LEARING AT POSITION ENG OF PISTON S-RING MAS TRANSAGE CUTS.                                                                                                                                                                                       | IBTON O-RING MAD TRANE                           | AME CUTO.           |                       |        |                               |                                           |                                         |
| <br>CORRECTIVE ACTION-60/C MORETING METH WENDOR                                | MORETHE METN WENDOR TO IMPROVE RELIABILITY.                                                                                                                                                                                                                   | LIABILITY.                                       |                     |                       |        |                               |                                           |                                         |
| <br>HTDRAULIC-A/B<br>BUSTAINGR/VERNIER                                         | A-88-04-3108F<br>SUSTAINER ACTUATOR ASSEMBLY, BEAR! E7-03316-017                                                                                                                                                                                              | FAR<br>1AB1 27-03314-017                         | 90 1030<br>307      | 81                    | 2 €    | LIGHEL PACIFIC                | PACIFIC                                   | • ***                                   |
| <br>FAILURE MODE-FAILED DUR<br>ALIGNING BEARING.                               | FAILUME MODE-FAILED DUMING OPERATION-HIGH PITCHED BOMEAL DUMING PREGNENCY REGPONME. BURFLETED TO BE BINDING OF<br>ALICHING BEARING.                                                                                                                           | , DURING PREDMENCY RES                           | <b>30</b>           | EC1ED 19              | Ä      | 34 100 14<br>0 14 100 14      | X KU                                      |                                         |
| <br>CORECTIVE SCTION-FAILU                                                     | CORRECTIVE SCHON-FAILURE NOT CONFINED. PERSONNEL AT BITE INFORMED TO CHECK THAT BELF ALIBRING DEALINGS ARE TIGHT<br>O ASSUME AGAINST BEARING SLOP.                                                                                                            | IT INTOLED TO CACA                               | That age 4          | 4.16M1M5              | BEAR   | INGO ARE                      | 1321                                      |                                         |
| <br>HEDRAUL I C-A/B<br>BUSTAINER/YERNIER                                       | A-00-04-3005-F<br>ACTUATOR ASSEMBLY: Q-RING                                                                                                                                                                                                                   | FAR<br>27-63314-619                              | 901029              | PAC TOR V             | ភ្នំ ទ | TES INTERSTATE                | 3.1                                       | • • • • • • • • • • • • • • • • • • • • |
| <br>PAILUME MODELLEAM-ENTER<br>END OF ACTUATOR-LEAMME<br>L-AMEC REGUINGMENTS). | FAILUME MOE-LEAK-EXTERMAL-DURING CHECKOUT OF MISSILE MYDRANAIC OIL LEAKED FROM THE STATIC O-RING AT THE STATIOUMRY<br>END OF ACTUATOR-LEAKAGE RATE OF ONE DROP/30 MINUTES MAS DUE TO POROUG O-RING BEAL WARM-NOMERIAL BELON MINIMUM M<br>SPEC RESULFEMENTS) - | PRANEIC OL LEMED FR<br>DLE 10 POROJA O-RIM       | ON THE BYAN         | iic o-ain<br># Materi | 44     | TAG BIN                       | I OWN T                                   |                                         |
| <br>C. PAECTIVE ACTION-VENDO<br>A AND DEFECTIVE SEALS MI                       | CHARCTIVE ACTION-VENDOR CHANGED-INTERSTATE ACTUATORS TO BE REPLACED AT TINE OF PAILURE, AND DEFECTIVE SEALS MILL BE REPLACED DURING BARBACENEME OVERHAUL.                                                                                                     | D BE REPLACED AT THE OVERHALL.                   | OF PAILURE          | N.399 85              | BEAV   | OR WEIN BERVICE LIFE ENPIRE   | EWIRE                                     |                                         |
| HTDRAUL IC-A/D<br>SUSTAINER/VERNIEN                                            | VERNICA ACTUATOR ASSESSALT                                                                                                                                                                                                                                    | FAR<br>27-65312-609                              | 1040                | 1                     | 2 €    | CLENCO                        |                                           | •                                       |
| FAILURE MODE-EAR                                                               | ATIC OPERTION. UNIT REJECTED WHEN IT RESPONDED ERRATICALLY TO LIGHT TAPPING ON THE PEEDBACK TRANSO.<br>• CONFIDED BUT ATRIBUTED TO AN AMPLIFIER PAILUNE REPORTED IN PAR CT-88-04-604.                                                                         | ISPONDED ERRATICALLY T<br>IR PAILURE REPORTED IN | 0 LIGHT 7A          | 414 Os.               | Ĭ      | PULDBACK                      | 78 A M 50                                 |                                         |
| <br>CORRECTIVE ACTION-WONG. VAILUNG NOT CONFIRMED.                             | VALLURE NOT CONTINUED.                                                                                                                                                                                                                                        |                                                  |                     |                       |        |                               |                                           |                                         |

SEMERAL BYNAMICS CONVAIR DIVISION

9501 MY 91

## CONTAIN DIVISION

|                                                   | DIFFICULTIES SEVIEW-N                                                                                                                                         | DIFFICULTIES REVIEW-HYDRAULIC SYSTEM-AIRBORNE         | ¥                      |           |            |                                        |                                         |
|---------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|------------------------|-----------|------------|----------------------------------------|-----------------------------------------|
| 8/8/EN<br>8/8-8/8/EN                              | TEST/REPORT NUMBER<br>FAILED COMPOMENT WANG                                                                                                                   | DIF DATA BOURCE<br>PART NUMBER                        | VEHICLE<br>DATE DIF    | 11 A 11 F | # 5<br>6 0 | PRI PENDOR NAME<br>OTH VENDOR PART NO  | 8                                       |
| HTDRACE IC-A/B<br>BUSTAINER/VERNICA               | A-80-10-100F<br>HTBRAULIC ACCUMULATOR                                                                                                                         | FAR<br>27-08583-8                                     | <b>66</b> 010 <b>3</b> | VA.F.     | <b>2</b> 9 | YES PEACOCK ENGR.<br>NO CO.<br>B1303-3 |                                         |
| FAILURE MODE-INTERNA<br>D BT THE O RIMG.          | FRIMAL LEAR. LEARAGE OF PRECHAPSE LAS ACROSS THE PISTON INTO THE MYDRAULIC STUTEM. FAILURE HAS CAUSE                                                          | 048 THE PISTON INTO TO                                | E HTDRAUL!             | C 87876N  | . FAI      | LURE IMB CAI                           | *                                       |
| CORRECTIVE ACTION- VENDOR                         | MAS ISSUED E.O.                                                                                                                                               | NO. 2587 TO PROCURE SUPERIOR BUALITY O RING PACKINGS. | O RING PAC             | X.1868.   |            |                                        |                                         |
| HTDRAULIC-A/B<br>BUSTAINER/VERNIER                | A-86-10-093F<br>HYDRALLIC PURP, O-RIME                                                                                                                        | FAR<br>27-06990-3                                     | 677116                 |           | F 8        | VICKERS<br>AA-60410-L-E                | •                                       |
| FAILURE MODE-ERTFRIMAL CO                         | FRIMAL LTAK-OIL SEEPAGE AT THE PURP PLANGES.<br>N-YENOR MOTIFIED TO IMPERITARE THE BOOM O BIME MIMILITY LIBER POR SEALTHE.                                    | C                                                     | 1                      | ,         |            |                                        | *************************************** |
| HYDRAULIC-A/B<br>BUSTAINER/YERNIER                | AES1-0035/FC-440-01-100<br>HAMIFOLG: 0-RIME                                                                                                                   | COMPOSITE-FACTORY                                     | 1000                   | y/9       | 763 60/6   | 50/C                                   | <b>85.23</b>                            |
| FAILURE MODE-LEAK-MY<br>BYBYEM EFFECT-DEPLET      | FAILURE MODE-LEAK-HYDRAULIC LEAK DEVELOPED IN THE O RING AT THE BUSTAINER ENGINE CONTROL MANIFOLD.<br>BYBYEM EFFECT-DEPLETION OF LIBUID SUPPLY-O RING LIAKED. | AT THE BUSTAINER ENGI                                 | INE CONTROL            | . MMIFO.  | á          |                                        |                                         |
| VEHICLE EFFECT-COUNTDOMN CORRECTIVE ACTION-O RING | WEMICLE EFFECT-COUNTDOMN OR COMPOSITE DELAYED OR RESCHEDULED. RETEST OF HYDRAULIC SYSTEM RESULADD. CORRECTIVE ACTION-O RIMS WAS REPLACED.                     | ULED. RETEST OF HYDRAI                                | A.IC BYBTEN            | I REDUISE | á          |                                        | <del></del>                             |
| HYDRAULIC-A/B<br>BUSTAINER/VERNIER                | A-90-04-3107F<br>SUSTAINER ACTUATOR ASSEMBLY                                                                                                                  | FAR<br>27-03314-017                                   | 011110                 | <b>X</b>  | ដូខ្       | TES LIGHEL PACIFIC                     | <u>.</u>                                |
| FAILURE MODE-CONTAM!                              | FAILURE MODE-CONTAMINATION-EN-1:4 FAILED TO MEET MALL LINITS. FLOM RESTRICTED THROUGH RETURN CHECK VALVE.                                                     | HITS. FLOW RESTRICTED                                 | THROUGH A              | TURN CHE  | CA YA      |                                        |                                         |
| COPRECTIVE ACTION-VENDOR                          | VENDOM MAS SINCE BUILT NEW DECONTANINATION AREA USING LATEST EQUIPMENT. PACILITIES MANG BEEN CENT<br>Spec.0-75014.                                            | TION AREA USING LATES                                 | T COUPMEN!             | I. PACILI | TIES       | HAVE BEEN C                            | -                                       |
| HTDRAULIC-A/B<br>BUBTAINER/VERNIEP                | A-90-04-3108F<br>BUSTAINGR ACTUATOR ASSEMBLY                                                                                                                  | FAR<br>27-05514-017                                   | 012110                 | Ę         | ្និ និ     | TCS LIGHTL PACIFIC                     | ×                                       |
|                                                   |                                                                                                                                                               |                                                       |                        |           |            |                                        | -                                       |

FAILURE MODE-OUT OF TOLERANCE. VALVE MULL CURRENT BHIFTED.

SENERAL DYNAMICS CONVAIR BIVISION

11 104 1066

DIFFICULTIES BEVIEW-HYDRACKIC STRIEG-AIRBORNE

| 3/3/EM<br>8/6-3/3/EM                                                                                                                                  | TEST/AEPORT HUMBER<br>FAILED COMPONENT MANE                                                                                                                                                                                                                                                            | BIF BATA BOUNCE<br>PART NUMBER                                           | VEHICLE<br>DATE BIP   | 1116<br>710 2017                                   | PRI VENDOR MANE<br>OTH VENDOR PART NO            | A - 3   |          |
|-------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|-----------------------|----------------------------------------------------|--------------------------------------------------|---------|----------|
| COMPECTIVE ACTION-VENDOR                                                                                                                              | VENCOR HAS SINCE BUILT NEW DECONTANTION AREA USING LATEST EQUIPMENT. PACILITIES MANE BEEM CERT                                                                                                                                                                                                         | IOH AREA USING LATEST                                                    | COULTER.              | r. Pacility                                        | H238 JAVA 631                                    | T       | •        |
|                                                                                                                                                       | A-84-10-089F<br>HTDAALLIC ACCUMALATOR, O-8186                                                                                                                                                                                                                                                          | FAR<br>27-06553-3F                                                       | 66183                 | 574                                                | PEACOCH ENGR.<br>Co.<br>\$1205-3                 |         | <b>4</b> |
| FAILURE HODE-INTERNAL LE                                                                                                                              | MAL LEAR. LEARAGE OF THE PRECMANGE GAS ACROSS THE PISTON. FAILUNE NAS CAUSED BY THE O RING. WHOCH WAS ISSUED AN E.O. NO. 2367 TO PROCURE SUPERIOR GUALITY O RING PACKINGS.                                                                                                                             | ACROSS THE PISTON. FA                                                    | 11 O E188             | CLUBED BY                                          | 74£ 0 RIM.                                       |         |          |
| HTDRAULIC-A/B<br>SUSTAINER/VERNIER                                                                                                                    | CT-86-04-008F<br>ACTUATOR ASSEMBLT                                                                                                                                                                                                                                                                     | FAR<br>E7-6531E-605                                                      | 91119                 | •                                                  | VES CLÉMCO                                       | 1       | 055209   |
| FAILURE MODE-LEAR-ERTERN CORRECTIVE ACTION-MOME.                                                                                                      | EXTERMAL. UNIT MEJECTED FOR AN EXTERNAL LEAK AT THE PISTON SHAFT SEAL.                                                                                                                                                                                                                                 | JAM AT THE PLATOR O                                                      | MAT BEAL.             |                                                    |                                                  |         |          |
| MTDRAULIC-A/B<br>BUSTAINER/VERNIER                                                                                                                    | A-64-3438F<br>ACTUATOR                                                                                                                                                                                                                                                                                 | FAR<br>27-03312-005                                                      | 911189                | BYCLACAR                                           | SYCAMORE YES LIGHEL PACIFIC NO.                  |         | 3 27 2   |
| FAILURE MODE-LEAR-EXTERN<br>BAGRYD. OUTBOARD PISTON<br>ROPER INSTALLATION. NEPOR                                                                      | FAILURE MODE-LEAR-EXTERMAL. DURING SYSTEMS CHECK OUT, ENCESSIVE MYDRALLIC PLUIS LEARANG PAST THE PISTON MEALS WAS O<br>BHERYEJ. GUISCAND PISTON LANDS MORM ON RACK SIDE, CHUYED O-RIMMS AND BLIGHT NICK ADJACENT TO LAND MEAR CAUSED BY INP<br>MOPER INSTALLATION. REPORTED LEARANG WAS MOT CONFIRMED. | ESSIVE HTDRALLIC PLUI<br>PRINGS AND BLIGHT NIC                           | LEALANG<br>A ADJACENT | 20 THE TARE THE THE THE THE THE THE THE THE THE TH | PISTON BEALS UNS O<br>MEAR CAUSED BY IN-         | °ì      |          |
| CORRECTIVE ACTION-INVESTIGATION REVEALED DISCRI-<br>STED ALL SUBJECT UNITS GESTINED FON REJECTION S<br>IN STRICT COMPLIANCE WITH BACKLASH TOLERANGES. | CORECTIVE ACTION-INVESTIGATION REVEALED DISCREVANT UNITS MAD BEEN INSTALLED IN THE FIRLS. A THM TO THE FIELD REDUC<br>BYED ALL SUBJECT UNITS DESTINED FON REJECTION BE INSPECTED FOR GEAR BACKLASM REQUINEMENTS AND MEW UNITS BE INSTALLED<br>IN STRICT COMPLIANCE WITH BACKLASM TOLERANCES.           | MAD BEEN INSTALLED IN THE FIELD. A<br>POR GEAR BACKLASH REGUINDHEMIS AND | N THE FIEL            | . A 744                                            | THE TO THE FIELD REGUE<br>HEW UNITE BE INSTALLED | EGUE    |          |
| HTDRAULIC-A/B<br>BUBTAINER/VERNIER                                                                                                                    | AE61-1106/82-603-00-53<br>015COMMECT, 07A61W6                                                                                                                                                                                                                                                          | COUNTDOMN 87-06556-1                                                     | 921110                | *                                                  | VES 104700-0<br>NO 51290-1                       | •       | ****     |
| FAILURE MOE-FAIL TO OPE<br>T. MYDRAULIC PRESSURE SWI                                                                                                  | TO CPERATE AT PRESCRIBED TIME. DIBCORMECT POPPET INCOPRECTLY INSTALKED PREVETTED ACTUATION OF BUR<br>RE BUITCH DURING MAINSTAGE.                                                                                                                                                                       | CT POPPET INCOMECTEN                                                     | INSTALLE              | ) <b>MEW</b> (10                                   | ACTM1104 G                                       | 3       |          |
| BYBIEM EFFECT-OFERATING                                                                                                                               | ATING BIOPS PAEMATURELT. EMBINES CUT-OFF BY PAILURE TIMER.                                                                                                                                                                                                                                             | P BT PAILUME TIMEN.                                                      |                       |                                                    |                                                  | <u></u> |          |
| WENTELE EFFECT-COUNTDOM                                                                                                                               | WENICLE EFFECT-COUNTDOMN ABORTER AND RE-SCHEBULED.                                                                                                                                                                                                                                                     |                                                                          |                       |                                                    |                                                  |         |          |

GENERAL DYNAMICS CONVAIR DIVISION

10 191

|   | 9787E%<br>9-6-9787E%                                                            | TEST/REPORT MUMBER                                                                                                                                                                                                                                                                                                          | DIF DATA BOURCE                                                                  | STARFOAT MUMBER             | 91.10                     | Ë                                     | WEMICLE BITE PRI VENDOR MANE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |               |
|---|---------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|-----------------------------|---------------------------|---------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
|   | HYDRAULIC-A/B                                                                   | A-88-10-086F                                                                                                                                                                                                                                                                                                                | FAR                                                                              | 61 1031                     |                           | 1 1                                   | VES VICAGES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | •             |
|   | BORTALACA/VERNICE                                                               | HIDRALLIC PUMP, O-RING                                                                                                                                                                                                                                                                                                      | £7-06590-3                                                                       |                             |                           | 2                                     | AA-40410-L-8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |               |
|   | FAILURE MODE-EXTERNAL L                                                         | FERNAL LEAR-OIL SEEPAGE FROM THE PUMP PLANGED. FAILURE DUE TO PUOR GUALITY O RINGS.                                                                                                                                                                                                                                         | MGEB. PAILURE BUE TO I                                                           | PUCH BUALT                  | 74 O R1868                | •                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |               |
|   | CORRECTIVE ACTION-VENDO                                                         | ON-VENDOR INSTRUCTED TO INFROVE 8.5.                                                                                                                                                                                                                                                                                        |                                                                                  |                             |                           |                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <u>. ——</u> - |
|   | MTDRAUL I C-A/B<br>BUSTAINER/VERNI ER                                           | AA61-0152/PE-402-00-117<br>ACTUATOM ASSEMBLT: YERNIER                                                                                                                                                                                                                                                                       | COUNTDOM                                                                         | 1170                        | 18<br>-3660               | 20                                    | YES LIGHEL PATIFIC NO                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 325.          |
|   | FAILURE MODE-LEAR EXTER                                                         | AR EXTERNAL-HYDRAULIC LEAKAGE PAST THE TEFLON BEALD.                                                                                                                                                                                                                                                                        | FLON SEALB.                                                                      |                             |                           |                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | ·             |
|   | BYSTEN EFFECT-NONE.                                                             |                                                                                                                                                                                                                                                                                                                             |                                                                                  |                             |                           |                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |               |
|   | VEHICLE EFFECT-COUNTDOM ABORTED.                                                | M ABORTED.                                                                                                                                                                                                                                                                                                                  |                                                                                  |                             |                           |                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <del></del>   |
|   | CORFECTIVE ACTION-ENGINE                                                        | E REPLACED-VERNIER 1 MAS ALBO CHANGED FOR CONFIDENCE REASONS.                                                                                                                                                                                                                                                               | NGED FOR CONFIDENCE RI                                                           | EASONS.                     |                           |                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |               |
|   | HYDRAU, IC-A/B<br>Sustainga/Vernier                                             | A-68-04-3075F<br>ACTUATOR ASSEMBLY: SEAL                                                                                                                                                                                                                                                                                    | FAR<br>E7-6331E-603                                                              | 41011                       | SYCAMORE YES CLENCO<br>NO | 5 9                                   | LEXCO                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | ******        |
|   | FAILURE MOCE-LEAK-EATER<br>LURE COMTRMED, AMD MAS                               | FAILURE MOCE-LEAK-EXTERMAL. UNIT LEATED A STEADT STREAM AT THE SHAFT SEAL WHEN THE VERNIER ENGINE WAS GIMBALED. FAI<br>URE COMFIRMED: AMD WAS DUE TO EXCESSIVE SCORING ON PISTOM LANDS O-RIWGS; AND PISTON SHAFT.                                                                                                           | AT THE SHAFT SEAL WED!<br>W LAMDS O-RIMES, AND I                                 | N THE VERNI<br>PLATON BHAP  | ER EMBINE<br>17.          | <b>\$</b>                             | GIMBALED. FAI                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |               |
|   | CORECTIVE ACTION-INSTR<br>ANCE: AND REQUESTING THA<br>OR TO REMOVAL FROM THE I  | CORRECTIVE ACTION-INSTRUCTIONS ISSUED TO INSURE THAT ALL NEW UNITS TO BE INSTALLED SHALL COMPLY WITH BACKLASH TOLER<br>AMET AND REQUESTING THAT UNITS DESTINED FOR REJECTION WE INSPECTED FOR COMPLIANCE TO GEAR BACKLASH REQUIRENENTS PHI<br>OR TO REMOVAL FROM THE INSTALLATION AND RECOMMEN OF THE REJECTION FORM.       | NEW UNITS TO BE INSTI<br>INSPECTED FOR COMPLIC<br>EJECTION FORM.                 | ALLED SMALL                 | . COMPLY W                | 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | JACKLASH TOLER<br>WIREMENTS PHI                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |               |
|   | HTDRAULIC-4/8<br>Buntainer/Yervier                                              | A-88-04-5031F<br>ACTUATOR ASSEMBLY                                                                                                                                                                                                                                                                                          | FAR<br>87-85318-805                                                              | 1170                        | C.                        | 20                                    | TES LIGHEL PACIFIC<br>NO                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 32.           |
| 1 | FAILURE MODE-LEAK-EXTER<br>R HOUSING PAST THE PISTO<br>LAND MEAR CAUSED BY IMPR | FAILURE MODE-LEAK-EXTERNAL-DURING A ROUTINE MAINTENANCF CHECK HYDRAILIC FLUID WAS COSERVED LEAKING FROM THE CYLINDE<br>1 MOUSING PAST THE PISTOM SEALS. OUTDOARD PISTOM LANDS NORN ON RACKBIDE, CHAFED O-RINGS AND BLIGHT MICK ADJACENT TO<br>AND MEAR CLUSED BY IMPROPER INSTALLATION, REPORTED LEASAGE WAS NOT CONTIRNED. | CHECK HYDRAILIC FLUID<br>AN OH RACKBIDE, CHAFEI<br>GE MAB HOT CONFIRMED,         | MA CREEN                    | NED LEAKIN                |                                       | LEAKING PRON THE CYLINDE<br>BLIGHT MICK ADJACENT TO                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |               |
| • | CCRRECTIVE ACTION-INVES UESTED ALL SUBJECT UNITS                                | CCARECTIVE ACTION-INVESTIGATION REVEALED CONTINNED PAILUNES HAD BEEN INSTALLED IN THE FIELD. A THE TO THE FIELD REG<br>Wested all subject units destined for rejection be inspected for gear bacalaba requirenents and new units be installed in strict conflince with bacalaba tolerances.                                 | RES HAD BEEN INSTALLED IN THE FIELD. A<br>TED FOR SEAR BACKLASM REQUIREMENTS AND | D IN THE P.I<br>REQUIREMENT | JELD. A TH<br>HTS AND HE  | 23                                    | TWK TO THE FIELD AES<br>NEW UNITS BE INSTALL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |               |
|   |                                                                                 |                                                                                                                                                                                                                                                                                                                             |                                                                                  |                             |                           |                                       | The state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the s | •             |

GENERAL DYNAMICS CONVAIR BIVISION

11 .04 1966

|                                                                 | DIFFICE                                                                                                                                                                                                                                                                                                                              | TIES ACVIEN-HVDA                                           | DIFFICULTIES AEVIEW-NYDRAULIC SYSTEM-AIRBORNE                 | Ä                                    |                                       |       |                                   | ٦                                                 |
|-----------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|---------------------------------------------------------------|--------------------------------------|---------------------------------------|-------|-----------------------------------|---------------------------------------------------|
| 8791676<br>878-878                                              | TEST/REPORT HUMBER<br>PAILED COMPONENT NAME                                                                                                                                                                                                                                                                                          | IT HUBER<br>HENT HANG                                      | DIP DATA BOUNCE<br>PART NUMBER                                | TAICLE<br>DATE DIF                   | TIME DIF OTH                          |       | VENDOR NAME<br>VENDOR PART NO     |                                                   |
| HTDRAULIC-4.B                                                   | A-88-04-3030F<br>ACTUATOR ASSEMBLY                                                                                                                                                                                                                                                                                                   |                                                            | FAR<br>87-8318-805                                            | 91100                                | 678                                   | ត្ត ទ | TES LICHEL PACIFIC                |                                                   |
| FAILUME HODE-LEAR-<br>THE CYLINGEM HOUSE<br>BONE, CHAFED O-RIN  | FAILUME HODE-LEAR-ERTERMAL, DURING MAPCHE MU CHECKR A BYEADY BYREAN OF HYDRAULIC PLUID MAS NOTED TO BE LEALING FRUN<br>The Cylingka Housing Part the Piston Seals. Outboard Piston Lands beyerely worn of Rack Bide, beratches on Cylinger<br>Bore, Chafed o-Rings adjacent worn Piston Lands Cauled by Infroper Installation.       | W CHECKB A BYEAD!<br>OW!BOARD PIBTON<br>AMDS CAUSED BY IN  | F BTREAM OF HYDRAU<br>LAMDS SEVERELY WO<br>ORCOTER INSTALLATI | LIC PLUID<br>RN OA RACK<br>ON.       | MAS NOTED<br>BIDE: BC                 | 4 0 A | E LEALING FROM                    |                                                   |
| CORRECTIVE ACTION-<br>PIED ALL SUBJECT UN<br>IN STRICT COMPLIAN | OM-INVESTIGATION REVEALED DISCREPANT UNITS MAD BEEN INSTALLED IN THE FIELD. A THA TO THE FIELD REDUE<br>UNITS DESTINED FOR REJECTION BE INSPECTED FOR GEAR BACALASM RESUIREDENTS AND NEW UNITS BE INSTALLED<br>TAIXE WITH BACALASM TOLERANCES.                                                                                       | SCREPANT UNITS M<br>M BE INSPECTED FO<br>E8.               | ID BEEN INSTALLED<br>IN VEAR BACALASH R                       | in the Fig<br>Edutation              | 16. A 74K<br>MAIO MEV                 | 0.5   | 4E FIELD REGUE<br>B BE INSTALLED  |                                                   |
| HIDRALLIC-A/B<br>BUBTAINER/VERNIER                              | PH-04-287<br>ACTUATOR ABBURLY                                                                                                                                                                                                                                                                                                        |                                                            | FAR<br>27-65312-603                                           | 50£                                  | FOEBE 3                               | 20    | TES BOANAN MES. C 887341<br>MO O. | ***                                               |
| FALUNE MODE-STRUC<br>MALYSIS REYEALED A<br>6 PARTING LINE: MYD  | FAILUME MODE-BIRUCTUGAL. THE BUBJECT BERVO ACTUATOR LEAKED HYDRAULIC FLUID FROM CYLINDER ABBENGLY P/N 27-08578-11. A<br>MLTBIB REVEALED A CHACA APPROXIMIELY ONE INCH LONG IN THE PORGED ALUMIMUM CYLINDER NOUBING. IT FOLLONED THE FORGIN<br>FARTING LINE, HYDRAULIC FLUID WAS FORCED THROUGH THE CRACA DURING PRESSURIZATION.      | ACTUATOR LEAKED H<br>MCH LONG IN THE P<br>HROVEN THE CRACK | VDRAILIC FLUID FR<br>VREED ALUMIMM CTI<br>DURING PRESSURIZA   | ON CYLINDE<br>LINDER HOUR<br>TION.   | A A A A CO GAL.                       | 2 2   | 27-08573-1. A<br>ED THE FOREIN    |                                                   |
| CORRECTIVE ACTION-6D/C                                          | -60/C MAS TERMINATED PROCUMENENT OF THE PONCED ALUMINUM ALLOT CYLINDES.                                                                                                                                                                                                                                                              | ACCESS OF THE POR                                          | SED ALUMINUM ALLO                                             | CYLINGER                             |                                       |       |                                   |                                                   |
| BUBTAINER/VERNIER                                               | ACTUATOR ABBUILD                                                                                                                                                                                                                                                                                                                     |                                                            | 27-68318-603                                                  | 911909                               |                                       | 9     | TES BOLINAN PTO. C                |                                                   |
| PAILUME . DC-LEAR .<br>ADALTSIS REVEALED<br>106 PARTIME LINE.   | FAILUME 1.OC-LEAK ERTERMAL-THE BUBJECT BERNO ACTUATOR LEAKED HYDRAULIL FLUID PROM CYLINDER ABBENDLY D'AN EY-DABYD-1.<br>Amaltris Revealed a crack approximately one inch long in the poseed aluminum cylinder housing. It polloned the port<br>Ing parting line, hydraulic fluid was porced theough the crack quaing pressureration. | O ACTUATOR LEAKED<br>INCH LONG IN THE<br>THROUGH THE CRAC  | HIDBALLIC FLUID I<br>FORED ALWINN<br>A DURING PRESSURE        | MON CYLING<br>CALINDER HE<br>EATZON. | E4 A50E4<br>20106. 17                 |       | N ET-Desta-1.<br>CHED THE FORD    |                                                   |
| CORRECTIVE ACTION-                                              | COMECTIVE ACTION-607C HAS TERNINATED PROFUNDABLY OF THE PORCED ALURINUM ALLOF CYLINGER.                                                                                                                                                                                                                                              | NEMENT OF THE POR                                          | GED ALLES MEN ALLO                                            | CYLINGER                             |                                       |       |                                   | · <del>· · · · · · · · · · · · · · · · · · </del> |
| HTDRAG IC-A/B                                                   | MATERIALIC PLANT                                                                                                                                                                                                                                                                                                                     |                                                            | FA4<br>E7-04590-3                                             | 14¢<br>012 <b>001</b>                | FAIRCHIL TES VICKERS<br>D NO AA-60411 | 20    | V[CKER&<br>AA-60418-L-F           |                                                   |
| FAILURE MOLE-EXTER                                              | ICANAL LEAR-LEARACE AT NATING PLANGES SETNEEN THE PUSP HOUSING AND THE CONTROL VALVE.                                                                                                                                                                                                                                                | FLAMES BETWEEN                                             | THE PUR HOUSING                                               | A 714 C.                             | MPROL WAL                             | ķ     |                                   |                                                   |
| CONNECTIVE ACTION-                                              | CORRECTIVE ACTION-LEARANCE NOT CONFIRMED.                                                                                                                                                                                                                                                                                            |                                                            |                                                               |                                      |                                       |       |                                   |                                                   |

| CONVAIR DIVISION |  |
|------------------|--|
| CONTAIN          |  |
|                  |  |

|                                               | VENICLE BITE PRI VENDOR MANE<br>BATE BIF THE BIF OTH VENDOR PART NO | YES CADILLAC 6466 807890                    | IN THE TOROUE NO                                                                                                                             | PROCESS BY PROVI                                                                                                                                                                                                     | TES BAMP-TITE INC. 809163          |                                                                                            | AND TO INPLOME                                                                                                     | TES INTERSTATE 60763E                      | TUATOR. PALLURE                                                                                                                                                 | CT COMPONENTS TO                                                                                                                                         | TES BOMMAN ME. C 887838<br>NO O.   | AMALYSIS CONFIR                                                                                                                                                                                                                                                                                                                                     |
|-----------------------------------------------|---------------------------------------------------------------------|---------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|--------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|--------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                               | 114E 01F OTH                                                        | FORBER VES                                  | 33900 T GMO.                                                                                                                                 | MFACTURING<br>URES.                                                                                                                                                                                                  | EYR YE                             | <b>g</b> i                                                                                 | OF COUPLIN                                                                                                         | C14 7E                                     | 5 5 5                                                                                                                                                           | CHECK BUBLI                                                                                                                                              | FORBES YES                         | ANT PLUS OR                                                                                                                                                                                                                                                                                                                                         |
| ž                                             | WEMICLE<br>DATE BIP                                                 | 406                                         | NIMATION P                                                                                                                                   | IN THE RE                                                                                                                                                                                                            | 810918                             | MAS CORRO                                                                                  | CORROBICH                                                                                                          | 30E<br>610919                              | AT TAE LOA                                                                                                                                                      | <b>64687ED</b> 70                                                                                                                                        | 310010                             | AKING MYDN<br>A LIBCRFF<br>O THE PLUB                                                                                                                                                                                                                                                                                                               |
| RAULIC BYSTEN-AIRBO                           | DIF DATA BOUNCE<br>PART NUMBER                                      | FAR<br>27-04208-1                           | 10 TO METALLIC CONTA                                                                                                                         | TER CLEANLINESS DUR                                                                                                                                                                                                  | FAR<br>87-06572-1                  | MAFACE OF CO.PLINS                                                                         | ED ABOUT PROBLEM OF                                                                                                | FAR<br>27-85314-817                        | e THE RETAINER RING                                                                                                                                             | 1-FIELD PERSONEL NE                                                                                                                                      | FAR<br>27-83312-603                | NTOR WAS DETECTED LE<br>NLL 18 DUE TO ELIMEN<br>FOREING ADJACENT T                                                                                                                                                                                                                                                                                  |
| DIFFICULTIES REVIEW-HVDRAULIC SYSTEM-AIRBORNE | TESTARFORT NUMBER<br>FALLED COMPOSENT NAME                          | A-SH-04-3USG-P<br>BERVO VALVE, TORGUE HOTOR | FAILUME HODE-ERRATIC OPERATION, CAUDE OF PAILUME ATTRIBUTED TO METALLIC CONTABINATION FOUND LODGEE IN THE TORBUE HO<br>ON OF THE BERWOYALME. | CORRECTIVE ACTION-VENDOR PROCEDURES CHANGED TO INSURE GREATER CLEANLINESS BURING THE NAMERACTURING PROCESS BY PROVI<br>Ling additional cleaning and inspection steps, GD/C Personnel Reviewed Vendors GC Procedures. | 98-10-084<br>Fiffie, BEAL          | FAILUME HODE-EXTERNAL LEAK-LEAKAGE PROM BEAL AND INTERNAL BUAFACE OF COUPLING WAS COMODED. | CORRECTIVE ACTION-FAILURE NOT CONFIRMED. VENDOR NAS HOTIFIED ABOUT PROBLEM OF CORROSION OF COUPLING AND TO IMPROVE | A-96-04-3036F<br>ACTUATOR ASSEMBLY: O-RIME | FAILUME WIDE-LEAK-EXTERMAL- HYDRAULIC OIL WAS LEAKING PROM THE RETAINER RING AT THE LOKEA END SF ACTUATOR. FAILUME<br>NS NOT CONFIRMED DURING FAILUME (MALTRIS. | CORRECTIVE ACTION-INITIATED CLOSE SURVEILLANCE OF ACTUATOR-FIELD PERSONNEL MENUESTED TO CHECK SUBJECT COMPONENTS TO<br>Verify failunes Prior to removal. | 9H-01-E/8<br>ACTURTOR ABFEMBLY     | PAILURE MODE-EXTERNAL LEAK, THE VERNIER EMGINE BERVO ACTUATOR UMB DETECTED LEAKING HYDRAULIC PLUID. AMALYBIS CONFIR<br>MED THE LEAK, HYDRAYLIC OIL METRAGE IMROMEN THE MANIFOLD WALL IS DUE TO EITMER A LIBERFANT PLUS OR THI IMPROFER INS<br>TALLATION OF THE PLUS, EXISTANCE OF A BALLE FRACTURE IN THE PORSING ADJACENT TO THE PLUS IS POSSIBLE. |
| 9941 807 41                                   | 8781EN<br>308-8781EN                                                | HTDRAILIC-A/B<br>BUSTAINGR/VERNIER          | FAILURE MODE-ERRATIC OFF<br>TOR OF THE BERNOVALUE.                                                                                           | CORRECTIVE ACTION-VENDOR                                                                                                                                                                                             | HYDRAULIC-A/B<br>Bustaineg/Vermier | FAILUME MOC-EXTERNAL LE                                                                    | CORRECTIVE ACTION-FAILUR THEIR QUALITY CONTROL.                                                                    | MYDRAUL I C-A/B<br>SUSTAINER/VERNIER       | FAILUME MODE-LEAR-EXTERNAL- HYDRAULIC OIL<br>NAS NOT CONTRMED DURING FAILUME (NALTRIS.                                                                          | CORRECTIVE ACTION-INITIATED CLOSE VERIFT FAILURES PRIOR TO REMOVAL.                                                                                      | HTDRAULIC-A/B<br>BUSTAINER/VERNIER | PAILURE MODE-EXTERNAL LE<br>MED THE LEAS, HTORAYLIC C<br>TALLATION OF THE PLUB, EX                                                                                                                                                                                                                                                                  |

GENERAL DYNAMICS CONVAIR BIVISION

11 144 1986

į

Í

| 3731EH<br>8UB-3731EH                                                                                | TEST/I EPONT HUMBER<br>FAILED COMPONENT NAME                                                                                                                                                                                                                                                                                                                                                                                                                                                 | DIF DATA SOURCE<br>PART NUMBER                                                                        | VEHICLE                   | 3118<br>3118                                     | PRI VEN                          | VEHICLE BITE PRI VENDOR NAME DATE DE VENDOR PART NO |             |
|-----------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|---------------------------|--------------------------------------------------|----------------------------------|-----------------------------------------------------|-------------|
| HYDRAULIC-A/B<br>BUBTAINER/VERNIER                                                                  | A-uf-04-3037-F<br>acquo valve                                                                                                                                                                                                                                                                                                                                                                                                                                                                | FAR<br>E7-04208-1                                                                                     | 43£                       | WAREN                                            | 7EB CADI                         | TES CADILLAC 6466.<br>NO 7C-E7-8864                 | •           |
| FAILURE MODE-ERRATI                                                                                 | FAILUME MOE-ERRATIC OPERATION, SETVOVALVE MALFUNCTION DURING MISSILE CHECROUT-FAILUME CONFIGNED AT SD-NO EXACT CAU<br>4. Of Failume was determined - ACL: Probable Cause of Failume is Netal Particle Contamination.                                                                                                                                                                                                                                                                         | DURING HIBBILE CHECKOU)                                                                               | I-TAILURE (               | 100F 14NED<br>1710H.                             | A 1 80-10                        | EMCT CAU                                            |             |
| CORRECTIVE ACTION-                                                                                  | CORRECTIVE ACTION-VENDOR PROCEDURES CHANGED TO INSURE GREATER CLEANLINESS DURING THE NAMIFACTURING PROCESS BY PROVI<br>ING ADLITIONAL CLEANING AND INSPECTION STEPS-GD/C MERSONNEL REVIEWED VENDORS BC PROCEDURES.                                                                                                                                                                                                                                                                           | AEATER CLEANLINESS DUR.<br>NOCH REVIEWED VENDORS (                                                    | ING THE MAN               | AUFACTURII<br>KEB.                               | MG PROCES                        | S BY PROVI                                          |             |
| H DRAULIC-A/B<br>SUSTAINER/YERNIER                                                                  | 90-C4-E93F<br>ACTUATOR ASSENDER                                                                                                                                                                                                                                                                                                                                                                                                                                                              | FAR<br>£7-85312-805                                                                                   | 20EC<br>610906            | 3                                                | TES INTERSTATE<br>NO             | RSTATE                                              | 097340      |
| FAILURE MODE-LEAK-<br>UID WAS QUSENTO BE<br>6 FAILURE AMALTSIS<br>E REPORTED (APPAREM<br>MACTIVITY. | FAILURE MUCE-LEAK-EXTERMAL-CURTING AM INTEGRATED TEST OF THE AUTOPILOT AND GUIDANCE SYSTEMS, LEAKAGE OR HYDRAULIC FL<br>UID WAS QUSENCED BEYNERN THE CYLLIGITZ AUSENGLY MOUSING AND THE PISTON, AMALYSIS FAILED TO CONFIRM THE PAILURE, DURIN<br>6 FAILURE AMALYSIS TESTS THE OSSER ED LIZARAGE RATES NERE NELL BELOM THE ALLOMBLE OF ONE BROP PER 23 FULL CYCLES. TH<br>E REPORTED (APPARÇAT) LEARAGE COULD HAVE RESULTED FROM ACCUMALATION OF ALLOMBLE LEAKAGE OVER A MERIOD OF ACTUATOR I | THE AUTOFILOT AND GUIT<br>NO THE PISTON, ANALYSIS<br>HELL BELOW THE ALLOWA<br>ICCUMA, VION OF ALLOWAN | PANCE STREET OF THE OF OR | DIB. LEAK!<br>O CONFIRM<br>DROP PER<br>OPER A PI | NEC OR HY<br>THE PAIL<br>ES FULL | PRAULIC FL. URE, DURIN CYCLES, TH ACTUATOR I        | <del></del> |
| CORRECTIVE ACTION-                                                                                  | CORRECTIVE ACTION-GOVE FIELD PERSONNEL AND BARE MANKERS HAVE BEEN MADE COGNIZANT OF THE MESULTS OF THIS ANALTSIS.<br>His should reduce the imcidence of uncurtined failunes.                                                                                                                                                                                                                                                                                                                 | IS MANE BEEN INDE COCHIT                                                                              | ANT O THE                 | : ACSUA.TS                                       | OF THIS                          | AMA.Y 818.                                          |             |
| HTDRAULIC-A/B<br>BUSTAINER/ MENIER                                                                  | A-8F-04-8034F<br>ACTUATOR ASSENDAT                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 74-65318-608                                                                                          | 44E<br>610808             | 4/19                                             | 763 LICH                         | TES LICHEL PASIFIC 097861                           |             |
| FAILURE MODE-LEAR-                                                                                  | IN-EKIEKMAL. HIDRALLIC PLUID MIS OBSCRWED LEARING PROM THE CYLINDER HOUSINS PAST THE PISTON SÉALS. (<br>INDS MER, DEERLY SCORED AND O-RING SFILE SYDLY CHAPED. FAILING MAS CAUSED BY IMPROPER INSTALLATION.                                                                                                                                                                                                                                                                                  | D LEASING PROM THE CTL.                                                                               | INDER KOUBE               | 100 PAST                                         | TIC PISTO<br>DPER JNST           | M SKALS. O<br>ALLATICA.                             |             |
| CORRECTIVE ACTION-<br>B-ED ALL B-B-JECT UN<br>IN BTRICT COMPLIAN                                    | CORRECTIVE ACTION-INVEBITGATION REVIALED DIYCHEPANT UNITB MAD BEEN INBTALLED IN THE FIELD. A THR TO THE FIELD REQUE<br>LED ALL BUDJECT UNITA DEBITHED FOR REJECTION BE INDPECTED FOR GEAR BACKLADA REQUIREMENTS AND NEW UNITS BE INSTALLED<br>IN BIRICT COMPLIANCE WITH BACKLADA TOLERANCE?                                                                                                                                                                                                  | ITS MAD BEEN INSTALLED :<br>IED FOR GEAR BACKLARM RI                                                  | IN THE PIEN<br>COURESENT! | A A SE SE                                        | 10 1ME F                         | TELD REUE:                                          |             |
| HTDRAULIC-A/B<br>BUSTAINER: VERNIER                                                                 | A-9F-0'-3016,<br>ACTUATOR ABSEMBLY                                                                                                                                                                                                                                                                                                                                                                                                                                                           | FAR<br>E7-65314-617                                                                                   | 35E<br>010 <b>0E0</b>     | 2                                                | 7E8 LIGH                         | YES LIONEL PACIFIC                                  |             |
| FAILURE XODE-OUT OF                                                                                 | OF TOLEGAMCE. ACTUATOR MUVED IN EXCESS OF THE AMDUNT CORRESPONDING TO THE MACHITUDE OF THE LIMPUT A<br>TOR A MAIL SHIFT ATRIBUTED TO BEIGHT INTERNAL CONTABINATION.                                                                                                                                                                                                                                                                                                                          | DOF THE AMOUNT CORRESP.                                                                               | 2401 AF 10                | in men                                           | 1 20 301                         | INE IMPUT D                                         |             |
|                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                       |                           |                                                  |                                  |                                                     |             |

18 JUN 1986

1

|                                         | D1 41 81 GM |
|-----------------------------------------|-------------|
| 1 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 | CONVAIR     |

|                                                                                                           | DIFFICULTIES REVIEW-HIDRAULIC STRIEM-AIRSORME                                                                                                                                                                                                                                                                                                                                                                                           | RAULIC SYSTEM-AIRBON                                             | ¥                                     |                                    |            |                                                                   |                                         |
|-----------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|---------------------------------------|------------------------------------|------------|-------------------------------------------------------------------|-----------------------------------------|
| # 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1                                                                   | TEST/REPORT NUMBER<br>FAILED COMPONENT NAME                                                                                                                                                                                                                                                                                                                                                                                             | DIF DATA SOURCE<br>PART NUMBER                                   | VEHICLE<br>DATE DIF                   | 11 ME DIF                          | # 5<br># 5 | VEHICLE BITE PRI VENDOR NAME DATE DIF TIME DIF OTH VENDOR PART NO | 1                                       |
| CORRECTIVE ACTION-MANUF                                                                                   | CORECTIVE ACTION-MANUFACTURE DATE OF THIS SERVO VALVE IMS 1860. VENDOR PROCEDURES MAYE SINCE BEEN CHANGED TO ASSUR                                                                                                                                                                                                                                                                                                                      | 1960. VENDOR PROCED                                              | URES MAVE                             | SINCE PE                           | 3 2        | NGED TO ABBUR                                                     | • 73 5                                  |
| NTGRAULIC-A/d<br>SUSTAINER/VERNIER                                                                        | SERVO ACTUATOR ASSEMBLY, B-NUT.                                                                                                                                                                                                                                                                                                                                                                                                         | FAR<br>27-05214-017                                              | 926<br>610623                         | 574                                | # Q        | YES INTERSTATE                                                    | *************************************** |
| FAILURE MODE-EXTERNAL LEAR. LEARAGE OF MYD<br>TER AND HISSING O RIMSS AT BULKHEAD UNIONS.                 | FAILURE MODE-EXTERMAL LEAR. LEARAGE OF HYDRAULIC PLUIS PROM ITEM. CAUSE OF PAILURE, LOGGE B MUTS AT EACH END OF FIL.<br>ER AND HISSING ORINGS AT BULKHEAD UNIONS.                                                                                                                                                                                                                                                                       | 4 ITEM. CAUSE OF PAI                                             | LURE, LOOS                            | 6 B MU18                           | 4          | CH END OF FIL.                                                    |                                         |
| CORRECTIVE ACTION-HUMAN                                                                                   | CORRECTIVE ACTION-HUMAN ERROR TO BE ELIMINATED BY REVIEW OF EXISTING PLANNING AND INSPECTION CONTROLS.                                                                                                                                                                                                                                                                                                                                  | EXIBING PLANNING                                                 | AND INSPEC                            | 77 ON CON                          | races.     |                                                                   |                                         |
| MTDRALL (C-A/B<br>SUSTAINER/VERNIER                                                                       | A-98-04-3036-F<br>SERVO MALVE                                                                                                                                                                                                                                                                                                                                                                                                           | FAR<br>27-04209-1                                                | E0E<br>610023                         | ETA                                | 000<br>1E8 | NO CADILLAC<br>YES FC-27-397A                                     | 00.100                                  |
| FAILURE HODE-FAIL DURING CONTINED THAT SUBJECT                                                            | FAILURE HOEFFAIL DURING OFERATION-SERVOVALVE REPORTEDLY MALFUNCTIONED DURING CHECKOUT OF MISSILE- EXTENSIVE TESTYN<br>6 COMFINNED THAT SUGJECT VALVE FUNCTIONED PROPERLY AND THAT THE VERNIER VAN BERVOANFLIPIER MALFUNCTIONED. SEE FAR AS<br>8-04-237F FOR AMALYSIS OF SERVOAMH-LIFIER MALFUNCTION.                                                                                                                                    | NLFUNCTIONED DURING<br>THE VERNIER YAW BER                       | CHECKOUT O                            | MALFUK                             | - Ext      | EMSIVE TEST'N<br>D. BEE FAR AD                                    |                                         |
| CORRECTIVE ACTION-NOME                                                                                    | COKRECTIVE ACTION-NOME REQUIRED ( NO FAILUNE).                                                                                                                                                                                                                                                                                                                                                                                          |                                                                  |                                       |                                    |            |                                                                   |                                         |
| HYDRAULIC-A/B<br>BUSTAINER/VERNIER                                                                        | MD-90-10-663<br>Htdraulic Filter-Bustainer                                                                                                                                                                                                                                                                                                                                                                                              | FAR<br>27-06564-605                                              | \$1000S                               |                                    | 20         | YES PUROLATOR<br>NO 64868-1                                       | 3                                       |
| FAILURE MODE-EXCESSIVE EXTERNAL LEAKALF.                                                                  | EXTERNAL LEAKAGE.                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                  |                                       |                                    |            |                                                                   |                                         |
| CORRECTIVE ACTION-FAILURE NOT CONTINNED.                                                                  | URE NOT CONTIRMED.                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                  |                                       |                                    |            |                                                                   |                                         |
| HYDRAULIC-A/B<br>Bustainer/Vernier                                                                        | 9K-04-263<br>AUTUATOR ABSEMBLY, SEAL                                                                                                                                                                                                                                                                                                                                                                                                    | FAR<br>27-65312-603                                              | 15E<br>61060E                         | FAFB                               | 5 9        | VCS INTERSTATE CHE                                                |                                         |
| FAILURE HODE-EXTERIOL L<br>7-08973-1. THE LEAK WAS<br>1. FAILURE ANALTSIS DID<br>MAICH MAY HAVE TEAPORARI | FAILUSE MODE-EXIERTAL LEAR-THE UNIT LEAKED HYDRAULIC FLUID BETNEEN THE RACK AND HOUSING OF CYLINDER ASSENBLY, PIN R<br>7-08573-1. THE LEAK WAS A FEW DROPS PER HINDIE IN THE STATIC CONDITION AND A STEADY STREAM DURING CTELING AT 3000 PS<br>1. FAILUSE ANALISIS DID NOT CONFIRM THE LEAKAGE ALTHOUGH A SMALL PIECE OF ALUSINUM WAS FOUND BENEATH THE FELT WIPER<br>MHICH MAY HAVE TEAPORARILY CAUSED THE LEAK AEPORTED IN THE FIELD. | BETHEEN THE RACK AN<br>CONDITION AND A BT<br>HALL PIECE OF ALUAI | D HOUSING<br>EADY STREA<br>NUM WAS FO | OF CYLING<br>H DURING<br>UND BENEZ | CTCL1      | 3EMBLY, P/H E<br>M6 AT 3000 PS<br>C FELT MIPER                    |                                         |
| CORRECTIVE ACTION-THE P<br>TOR CYLINDERS IS CURRENT                                                       | CORRECTIVE ACTION-THE PROBLEM OF EXCESSIVE PLUID LEARABE BETMERN THE RACK BHAPT AND HOUSING OF WERNIER ENGING ACTUA<br>TOR CYLIMOERS IS CURRENTLY UNDER 60/C SUMPELLANCE.                                                                                                                                                                                                                                                               | THESH THE RACK SHAP                                              | T AMD HOUR                            | 8                                  | inni Ç     | ENGINE ACTUA                                                      |                                         |

GENERAL DIMANICA CONVAIR DIVISION

15 JUN 1966

|                                                                                          | DIFFICULTIES REVIEW-M                                                                                                                                                                                                                                                                                                                                                                                                               | DIFFICULTIES REVIEW-HYDRAULIC STRIEM-AIRBORNE                                           | J.                                        |                                |            |                                                 | ſ                                       |
|------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|-------------------------------------------|--------------------------------|------------|-------------------------------------------------|-----------------------------------------|
| BYBTEN<br>BUG-BYSTEN                                                                     | TEST/REPORT NUMBER<br>FAILED COMPONENT MANE                                                                                                                                                                                                                                                                                                                                                                                         | DIF DATA BOUNCE<br>PART NUMBER                                                          | MENICLE<br>DATE DIF                       | PATE DIP TIME DIP              | 9 0<br>1 1 | VENDOR NAME                                     |                                         |
| MYORAULIC-A/B<br>BUSTAINER/VERNIER                                                       | SY-10-08E<br>BUSTAINER TANK                                                                                                                                                                                                                                                                                                                                                                                                         | FAR<br>27-06:32-9                                                                       | 13E<br>010001                             | FORBES                         | 2 0        | TES BENGON<br>NO. 6983                          | • • • • • • • • • • • • • • • • • • • • |
| TALLUME MOTESTRACTU<br>TO ENG MAS PSECTUREDS<br>UMBETERMINGOS                            | FALLONE MON'E STRUCTURAL—HYDRAULIC RIGG CAP BEPARATED PROH THE MAIN CYLINDER; AND THE MOUNTSMS.<br>Is enc has polityed, reservoir pailed because hydraulic bystem has overpressurised. Cause of undeterpines.                                                                                                                                                                                                                       | THE MAIN CYLINDER, AI<br>BYBIEN MAS OVERPRESSU                                          | 10 THE MOUNTED                            |                                | AE 9       | BRACKET ON THE PHEUMAT<br>OVERPRESSURIZATION IS |                                         |
| CORRECTIVE ACTION-UM                                                                     | CH-UHRINOLHI.                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                         |                                           |                                |            |                                                 |                                         |
| HTDRAULIC-A/B<br>SUSTAINER/VERNIER                                                       | 90-04-262<br>ACTUATOR ASSENBLY, O-RING                                                                                                                                                                                                                                                                                                                                                                                              | FAR<br>E7-6531E-603                                                                     | 1110<br>6:0722                            | E3                             | 76.8 I     | INTERSTATE ENGINEERING                          |                                         |
| FALLUKE MODE-EXTERNAL ME OF THE CTLINDER ASH ME PISTON O-RING SEAL MAT THE ITEM UNIT HAS | FAILURE HOGE-EXTERNAL LEAK. THE UNIT, 3/M 102-0282; MAS REPORTED LEAKING FYDRAULIC PLUID BETNEEN THE RACK AND HOUSI<br>MA OF THE CYLINGER ASSEMBLY: P/M E7-04937-1. FAILURE AMALTRIS INCICATED THAT LEAKARE IS DUE TO A WORN COMDITION OF THE PISION O-RING SEAL. THE SPECIFIED HINIMAM LIFE OF THE ITEM ACTUATOR IS BECORD CYCLES. CUMBERVATIVE ESTIMATES ARE THAT THE ITEM UNIT HAS ACHIEVED A CYCLING LIFE OF 1000M-150M CYCLES. | REPORTED LEAKING HYDRA<br>Tale INCICATED THAT LA<br>ITEM ACTUATOR IB BOODM<br>H CYCLEB. | AULIC PLUID<br>EARAGE 18 E<br>2 CYCLES. G | DETMEEN DAE TO A MOSER VATE    | 7. E. S.   | ACK AND HOUSE<br>OMDITION OF T                  |                                         |
| CON-ECTIVE ACTION-NO                                                                     | CONTECTIVE ACTION-HOME-LEARAGE PAST PISTON SEALS ON DIGINE ACTUATORS IS CURRENTLEY UNDER 60/C SURVETLIANCE.                                                                                                                                                                                                                                                                                                                         | E ACTUATORS IS CURRE                                                                    | ITLEY WOEN                                | 60/C 8UR                       | 17:3A      | ANCE.                                           |                                         |
| HYDRAULIC-A/B<br>SUSIAINGH/VERMIER                                                       | 96-104- JOSE<br>ACTUATOR ASSEMBLY, VERNIER                                                                                                                                                                                                                                                                                                                                                                                          | FAR<br>R7-85511-905                                                                     | 14.01e                                    | COMPLEXI TES INTERNATE<br>B NO | ž 8<br>    | WTERFATE                                        | :                                       |
| PAILUME MONE-EXTERNAL                                                                    | FAILURE MOTE-EXTERNAL LEAR. LEARAGE OF MYDRAULIC PLUID FYON THE ITEM                                                                                                                                                                                                                                                                                                                                                                | 17Cm 14E 17Em                                                                           | :<br>:                                    |                                | (          |                                                 |                                         |
| CORRECTIVE ACTION-CO                                                                     | ON-CONTINUED BUTTILLANCE OF THEM ALMONGM NO PAILUNE CONLD BE FOMD. THEM ACCEPTABLE FOR                                                                                                                                                                                                                                                                                                                                              | H NO FAILURE COULD BE                                                                   | 70.00 E                                   | ON ACCEPTA                     | <u>.</u>   | OR MERVICE.                                     |                                         |
| HTDBALLIC-A/B<br>BUBININGAVERNIER                                                        | A-LA-04-3013F<br>ACTUATOR ASSENDLY: VERNIER                                                                                                                                                                                                                                                                                                                                                                                         | FAR<br>87-85311-803                                                                     | 810721                                    | CH13 VE:<br>COR.13E7 NO.       |            | YES INTERSTATE<br>MO                            |                                         |
| FAILURE MOE-LENK CK                                                                      | FAILURE MOE-LEIK ERTERMAL. LEAKAGE OF HYDRAULIC PLUID FROM THE ITEM.                                                                                                                                                                                                                                                                                                                                                                | RON THE LTEN.                                                                           |                                           |                                |            |                                                 |                                         |
| CCRRECTIVE ACTION-CO<br>CITON MAB TAZES TO EM<br>RVO ACTUATORA.                          | CCRECTIVE ACTION-CONTINUED BURYLLLANCE OF ITEM ALTHOUGH NO PAILURE COULD BE FOUND. ITEM ACCEPTABLE FOR BERVICE.<br>Tion has taken to enforce admerbace to existing provisioning procedures for removal, replacement and mandling of<br>No actuators.                                                                                                                                                                                | H NO PAILURE COULD BE<br>NIME PROCEDURES FOR R                                          | FOUND. 176<br>ENOTAL: RE                  | IN ACCEPTAL                    | A P        | POR SERVICE. A                                  |                                         |
|                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                         |                                           |                                |            |                                                 | ,                                       |

GENERAL DYNAMICS CONVAIR DIVISION

\*\*\*\* \*\*\* \*\*\*

4

į

|                                                       |                                                                                                                                                                                       | DIFFICULTIES REVIEW                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | DIFFICULTIES REVIEW-WORAULIC SYSTEM-AIRBORNE                                                                                | AM                                                    |                                               |               |                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|-----------------------------------------------|---------------|----------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                       | STSTEM<br>SUG-STSTEM                                                                                                                                                                  | TEST/REPORT NUMBER<br>FAILED COMPONENT NAME                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | DIF DATA SOURCE<br>PART NUMBER                                                                                              | VEHICLE<br>DATE DIF                                   |                                               | # 0<br># 10   | BITE PRI VENDOR NAME                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| enge a                                                | HTDRAULIC-A/B<br>BUSTAIMER/VERMIER                                                                                                                                                    | A-88-04-3016F<br>VERHIER ACTUATOR ASSEMBLY                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | FAR<br>27-05512-203                                                                                                         | 21E                                                   | 11- <b>6</b> 00                               | 4 di 3        | VES INTERSTATE ENG-<br>NO A. CO.                                     | ***                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| THE CONTROL OF MICH. ST. CO., LANSING PROPERTY.       | FAILURE MOE-EXTERNAL I<br>9-1. CAUSES LOCAMRING<br>PRESSURE PORT, FEEDBACE                                                                                                            | FAILUME MOGE-EXTERNAL LEAK, LEAKAGE OF HYDRAULIC PLUID BETUEEN PIBTON AND CYLINDER IN THE CYLINDER ABBENALY B7-0857<br>3-1. CAUSES, LOCAMIRIMA MISSIMA FROM ENDS OF PLUEB OF THE CYLINDER MOUSING, TIE DOMN BOLTB LOOME, O-RING MISSIMA FOR<br>PRESSUME, PORT, FEEDBACK TRANSDUCER MISSIMA.                                                                                                                                                                                                                           | BETAEN PIBTON AND CYL<br>ME CYLINDER MOUBING, TI                                                                            | HOER 18 70<br>E DOM BOL'                              | # CYLTHO<br>78 LOOME,                         | 2 4           | CYLINDER ABBENGLY 27-0037<br>LODGE, O-RING HIBBING FOR               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                                                       | CORRECTIVE ACTION-ACTION T AND HANDLING OF MERYO                                                                                                                                      | CORRECTIVE ACTION-ACTION WAS TAKEN TO ENFORCE ADMERBACE TO EXISTING PROVISIONING PROCESURES FOR RENOVAL, REPLACEMEN                                                                                                                                                                                                                                                                                                                                                                                                   | E TO EXISTING PROVISION                                                                                                     | ING PROCESI                                           | MEN POR                                       | Ş.            | AL, REPLACENEN                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| The straining of the Park                             | HYDRAUL IC-A/B<br>BUSTAINER/VERMIER                                                                                                                                                   | Pr04-3007P<br>ACTUATOR ASSEMBLY, BUSTAINER                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | FAR<br>87-85814-813                                                                                                         | 14C<br>610716                                         | 967-186                                       | \$ 9          | VES LIGHEL PACIFIC                                                   | •                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| norther of contract of contract                       | FAILURE MOE-CONTANINA                                                                                                                                                                 | ONTANIMATION, MIDHAULIC PLUID CONTAINED EXCESSIVE PARTICLES OF CONTANIMATE SIZE.                                                                                                                                                                                                                                                                                                                                                                                                                                      | EXCESSIVE PARTICLES OF                                                                                                      | CONTANINA 18                                          | . 1126.                                       |               |                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| erren - Austria er eine ert.                          | CORRECTIVE ACTION-INSTRUCTIONS 188<br>EMBLY OF ACTUATORS SHOULD ONLY BE D<br>Y HANDLED TO PREVENT CONTANINATION.                                                                      | CORRECTIVE ACTION-INSTRUCTIONS ISSUED ADVISING THAT ACTUATORS BE MANDLED IN THE FIELD AS COMPLETE ASSEMBLIES DISASS ENUL OF ACTUATORS SHOULD ONLY BE DUNE UNDER CONTROLLED LABORATORY CONDITIONS. ALL HYDRAULIC SUPPLIES TO BE CAREFULL Y HANDLED TO PREVENT CONTANTING.                                                                                                                                                                                                                                              | TUATORS BE MANDLED IN T<br>LABORATORY CONDITIONS.                                                                           | ME FIELD AS                                           | ALIC SUPP                                     | C A58         | EMELIES DISASS<br>TO BE CARLFULL                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| the second second                                     | HTDRAULIC-A/B<br>Bubtaingq/Verice                                                                                                                                                     | AB-04-242<br>ACTUATOR ASSEMBLY, VERNIER                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | FAR<br>27-65312-603                                                                                                         | 1230<br>610631-6<br>10722                             | 2                                             | ត្តិ និ       | YES INTERSTATE EME<br>NO INCERIME AND C<br>LENCO                     | • • • • • • • • • • • • • • • • • • • •                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| desirable de l'arrectation de desirable de la compani | FAILURE MOCE-LEAR EXTENDAL, SEVEN OF E JUAL751S REVEALED THAT RE-ENTRY OF BAING IN THE PRESENCE OF HYDRAULIC PAR EDGES OF THE CYLINDER BOME, THIS TO PISTON SEALS RESULTING IN LEAKS. | FAILUME MOCE-LEAR EXTENDED. SEVEN OF THE ITEN ACTUATORS MERE RENOVED FROM HISSILES DUE TO ENCESSIVE LEARAGE. FAILUM E AMALYSIS REVCALED FAAT RE-ENTRY OF A POSTION OF THE CUTBOAND LAND ON THE PRISTON DURING FULL STROKE CYCLING AND SHAD DAING IN THE PRESENCE OF HYDRAULIC PRESSURE HOUCED DEFLECTION. RESULTS IN IMPINGENENT BETHERN THE LANDS AND THE SHA PARECES OF THE CYLINDER BONE. THIS CAUSED SCHIKE ANY GALLING. SHALL PARTICLES THUS PRODUCED CAUSED SEVENE ABRABION TO PISTON SCALS RESULTING IN LEAKS. | NERE REMOVED FROM MISS TROAND LAND OR THE PISS LECTION RESULTS IN IMPHALLING. SMALL PARTICLE                                | STLES DUE 1<br>TON DURING<br>INVENENT BE<br>THUS PROD | O EXCESS<br>FUL. STR.<br>THEEN TH<br>WEED CAV | A CONTRACTOR  | EARAGE. FAILUR<br>YCLING AND SHU<br>DS ANG THE SHA<br>EVENE ABRANION | and the second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second s |
|                                                       | CORECCIVE ACTION-INE C<br>OF THE CHINGER BORE, I<br>EARMES PROGRAMISECHT II                                                                                                           | CORECCIVE ACTION-THE DESIGN MAS CHANGED TO REQUIRE CHROME PLATED PISTONS. THE WENDOR WILL ELIMINATE THE SHARP EDGE<br>OF THE CHINGER BORE, 60/C WILL CONTINUE TO REEP EXCESSIVE LEAR PROBLEM UNDER SURVEILLANCE, A BEARCH FOR CRITICAL W<br>EARMESS PROGRAMISTONT IS CURRENTLY BEING CONDUCTED ON REVENAL UNITS OF THE HODIFIED ITEM.                                                                                                                                                                                 | E CHROME PLATED PISTONS. THE VENDOR WI<br>EXCESSIVE LEAR PROBLEM UNDER SURVEILLAN<br>ON ACVERAL UNITS OF THE MODIFIED ITEM. | E VENDOR WI<br>BURVEILLAN                             | LL EL1991                                     | MP 12<br>ARCH | THE BHARF EDGE<br>FOR CRITICAL W                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                                                       | HTDRAULIC-A/B<br>BUBTAINER/YENIER                                                                                                                                                     | BK-04-238<br>ACTUATOR ABBERGLY: BERNO VALVE.                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | FAR<br>[. 87-63311-603                                                                                                      | 146                                                   | 123                                           | 58            | TES INTERSTATE                                                       | +                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

FAILURE MOCE-FAILED DUMING OPERATION-WHEN ENERGIED, THE ACTUATOR PIGTON MONED TO THE GIODG ON THE GHORT STROKE SIG E AND SECAME FIRED. CYCLING COALD MOT BE ACCOMPLISHED, FAILURE ANALYSIS CONCLUDED THAT THE PAILURE WAS DUF, TO THE SM ONTING OF ONE OF THE TOKICUE MOTOR LEADS TO THE BACKFACE OF THE RECEPTACLE PLATE.

MMERAL BYMAICS

| AC IO IA I       |  |
|------------------|--|
| COMANIA BIVIDION |  |
|                  |  |
|                  |  |

11 100

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | PAILED COMPOGNT MANE                                                                                                                                                                                                                                                                                                                                                                                      | PART HUBER                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | MATE BIF 71ME BIF OTA                    | WENDON PART NO                                           |   |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|----------------------------------------------------------|---|
| COMPECTIVE ACTION-64                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 4-40/C HAS MADE THE BERYO WALVE VENDOR (INTERSTATE) COSMIZANT OF THE BLECTRICAL DISCREDANCT. THE                                                                                                                                                                                                                                                                                                          | HOOM (INTERSTATE) CORNERS                                                                                                                                                                                                                                                   | A TA D.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | MICAL DIS                                | CAEDAMET. 1ME VE                                         | • |
| H DRAULIC-A/B<br>BUSTAINER/VERNIER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | BK-04-E88<br>ACTUATOR ABBENEAT, BERNO WALK                                                                                                                                                                                                                                                                                                                                                                | FAR 87-05311-003                                                                                                                                                                                                                                                            | 771<br>980016                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 75 75 75 75 75 75 75 75 75 75 75 75 75 7 | TES INTENSTATE<br>NO                                     | • |
| FAIF USE MODE-FAILED<br>PLANE DURING PERFORM<br>USE TO THE IMBILLITY<br>E MOTOR DUE TO A DIEN                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | FAIFURE MODE-FAILED TO OPERATE AT PRESCRIBED THE-PRE BERYD ACTUATOR, BAN DOB-6184, PAILED TO ACTUATE IN THE PLICH<br>Plane Duming Performance of Nameus Autoricof Test Procedures, Amaltais compinned fre failures and attributes the fail<br>Une to the immaility of the mozzle Adjustment Beagn to cap off the Mozzle when the Proper Bissal is fed to the Toneu<br>E motor due to a discrebant mozzle. | ATE AT PRESCRIBED THE-PRE BERYD ACTUATOR, BAN DOB-BIBA, PAILED TO ACTUATE IN THE PLICH MARCHE AUTOPICOT TEST PROCEDURES. AMALTSIS CONFINEED THE PAILURE AND ATRIBUTES THE PAILURE ADJUATHENT BEARN TO CAP OFF THE HOLLIE WHEN THE PROPER BISMAL IS FED TO THE TORSU MOLLIE. | 08-0164, PAIL<br>MED THE PAIL<br>DI THE PROPER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 19 TO ACTUA<br>186 AND ATT<br>91684, 18  | TE IN T.E. 213CH<br>MIBUTES THE FAIL<br>FED TO THE TORGU |   |
| CORRECTIVE ACTION-N                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | -100£.                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                          |                                                          |   |
| HTDRAUL IC-A/B<br>SUSTATING 9/ VERNIER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 88-10-078<br>HTDRAULIC PASS                                                                                                                                                                                                                                                                                                                                                                               | FAR<br>87-08960-1                                                                                                                                                                                                                                                           | 119010                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 20                                       | TES VICAERS<br>NO AA-60401-L-2                           | : |
| FAILURE MODE-LEAR-EL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | -EXTERNAL-MEETING TYPE LEAR PROOF THE INTERFACE OF THE PLAP BODY AND THE DISCURAGE PLATE.<br>PPAILUME NOT CONTINUED.                                                                                                                                                                                                                                                                                      | NE INTERACE OF ING PLAP                                                                                                                                                                                                                                                     | 700 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 100 AM 10 | DI BCHLACK                               | ž<br>F                                                   |   |
| HTGRAULIC-A/B<br>BUSTAINGR/YEANIER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | SM-10-075<br>ACCUMALATOR, BEAL                                                                                                                                                                                                                                                                                                                                                                            | FAR<br>87-00513-30                                                                                                                                                                                                                                                          | 1.0.000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 18                                       | 71.5 PEACOCK EMS.<br>NO 51303-3                          | • |
| FAILURE MOLE-INTERNALEASINE FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FACTOR FA | AMEL LEAK. MEN PREUMVIC PRESENTE MAS RELEASED FROM THE ACCUMBLANCE, MYDRAULIC FLUID MAS QUACHYED PREJATECT CHARGINE POST. IT WAS FOUND THAT OLL MAS A PRESENVATIVE AND MAS BEEN THEIR SINCE MANUFACTION PREVIOUSLY DEEM FAILURE AMALTED FOR SIMILAR FAILURES.                                                                                                                                             | E WAS MELEASED FROM THE A-<br>CARD PART OLL WAS A PRESE!<br>ZED POR BINILAR FAILURES.                                                                                                                                                                                       | CCURALA 900, ser                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | MANA IC P.C.                             | MAG BEEN THEIR BINCE MANUFAC                             |   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | PH-10-079                                                                                                                                                                                                                                                                                                                                                                                                 | 4                                                                                                                                                                                                                                                                           | 80 NO                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 2. 2                                     | TES CONTAIR                                              |   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | }                                        |                                                          |   |

SENERAL BYNAMICS CONVAIR BIVISION

98.7 MAT 81

CIPFICULTIES REVIEW-HYDRAULIC BYBTEH-AIMBORNE

| STATEM<br>BUB-STEEN                                                                                 | TESTAREPORT MANGER<br>FALLED COMPONENT NAME                                                                                                                                                                                                                      | BIF DATA SOURCE<br>PART HUNGER            | WAICLE SITE FRI                 |                                    | VENDOR NUME         |        |
|-----------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|---------------------------------|------------------------------------|---------------------|--------|
| HTORAULIC-A/B<br>BUBTAINER/VERHIER                                                                  | BA-04-229<br>ACTUATOR ABBENGLY, BERNOVALVE TONG ET-88811-601<br>UE HOTOR                                                                                                                                                                                         | FAR<br>27-65311-601                       | 610510 FAFE                     | YES INTERSTATE                     | 1416                | •••    |
| FAILURE MOE-STRUCTURAL-<br>IMS. THE FAILURE OCCURRED                                                | FAILUME MOE-STRUCTURAL-TORGUE MOTOR CAP PRACTURED DURING POOF MODIFICATION PROOF PRESSURE CHECK DUE TO OVER STRESS<br>ING. THE FAILUME OCCURRED SECAUSE LF IMPROPER COPPIGURATION DURING THE PRIOF YEST.                                                         | DAT HODIFICATION PROPING TO THE PROOF TO  | PROOF PRESSURE C<br>TEST.       | HECK BUE TO OM                     | R 878688            |        |
| CORRECTIVE ACTION-A NOTE HAS BEEN ADDED TO TION IS REALIRED FOR THE PROOF PRESSURE TEST.            | CORRECTIVE ACTION-A NOTE HAS BEEN ADDED TO THE NODIFICATION PLANNING TO PREVENT ANY CONFUSION AS TO NAICH CONFIGURA                                                                                                                                              | PLANEIME TO PREVEN                        | T ANT CONFUETO                  | N AB TO MAIGH O                    | OF I GURA           |        |
| WTDGAULIC-A/B<br>BUSTAINER/VERNIER                                                                  | 64-04-213<br>ACTUATOR ASSEMAT                                                                                                                                                                                                                                    | FAR<br>87-65312-603                       | 1010 WIR<br>610301              | TES BOUMMAN NFG. C<br>NO O.        | # #F6. C            | :      |
| FAILURE MODE-STRUCTURAL MEANNESS-THE ACTUATOR CR. RESTIC DURING PRODUCT EVALUATION AND FIELD TESTS. | FAILUME MODE-STRUCTURAL MEARMESS-THE ACTUATOR CYLINDER OF THE ASSEMBLY MAD ERHIBITED A STRUCTURAL MEARMESS CHARACTE<br>ISTIC DURING PRODUCT EVALUATION AND FIELD TESTS.                                                                                          | C ABBURLY MAD EXP                         | ISITED A STRUC                  | TUAL MARIESS                       | CHARACTE            |        |
| CORRECTIVE ACTION-HYDRAIN<br>TORS.                                                                  | CORECTIVE ACTION-HYDRAULIC DESIGN CROCKED THE CESSATION OF PROCURENENT AND SCRAPPING OF ALL EXISTING SOMMAN ACTUA                                                                                                                                                | PROCUREJENT AND BC                        | WPING OF ALL                    | ENISTING SOUN                      | AN ACTUR            |        |
| HYDRAULIC - N/B<br>Sustainer/ Vermier                                                               | 90-04-E06<br>ACTUATOR JESSEMLY, PEEDBACK TRANSD E7-65311-5<br>UCER                                                                                                                                                                                               | FAR<br>27-65511-9                         | 610300 VTA                      | VES LIGHEL PACIFIC                 | PACIFIC             | 600073 |
| FAILURE MODE-ERATIC OPER, MOTED ACCOMPANIED BY MASATI MITERITY SHORTED PING.                        | FAILURE MOE-EFRATIC OPERATION. DURING PLIGNT CONTROL CHECKOUT, ERRATIC OPERATION OF THE VERNIER ACTUATOR ASSY MAS MOTED ACCOMMANIED BY UNSATISFACIONY MAL PERFORMNCE, BOLDER BALL IN THE PLEDBACK TRANSDACER ELECTRICAL RECEPTACLE I NITERHITENTLY SHORTED PINS. | DUT, ERRATIC OFERAT<br>BALL IN THE PEEDBA | IOS OF THE WER<br>EX TRANSDUCER | MIER ACTUATOR A<br>ELECTRICAL RECE | SSY IMS<br>PTACLE I |        |
| CORRECTIVE ACTION-ALERTEL SPECTION MAS BEEN INSTRUC                                                 | CORRECTIVE ACTION-ALERTED OFFSITE AND NUMBRITABLE INSPECTORS TO THE CONTAMINATED CONDITION OF THIS RECEPTACLE. IN<br>SPECTION HAS BEEN INSTRUCTED TO EXERCISE VISILANCE TO PREVENT RECURRENCE OF THIS PROBLEM.                                                   | THE CONTANTN                              | ATED COMPTION                   | OF THIS RECEPT                     | ACLE. IN            |        |
| MYDRAULIC-A/B<br>Bubtaingr/Vermier                                                                  | 64-04-200<br>ACTUATOR ASSEMBLY                                                                                                                                                                                                                                   | FAR<br>27-65314-611                       | 950 WTR<br>910420               | VES INTERSTATE                     | 7A TE               |        |
| FAILURE HOCE-FAIL TO OPEI<br>CE 37-800, ST MAS BUSPELT                                              | PAILUME MOKE-FAIL TO OPERATE AT PREBCRIUED TIME. DURING APCHE CHECA NO-60 INDICATIONS MERK RECEIVED ON CARD 118, DE<br>Ca 87-800. IT was Buspelied That air contanination in the hydraulic strien could possibly BC the Cause.                                   | C CHECK NO-60 1401<br>PRAULIC STRIEM COUL | CATIONS MERS R                  | ECEIVED ON CARD<br>THE CAUSE.      | 116. 06             |        |
| CORRECTIVE ACTION-PAILURI<br>E PEDRAULIC SESTER MAS A P                                             | CORRECTIVE ACTION-FAILURE NOT CONFIRMED, 60/C ADVISED GOLDEN RAN BUALITY CONTROL GROUP THAT AIR CONTANINATION IN THE R POPAULIC STRIER WAS A POSSIBLE FACTOR IN THE MALFUNCTION.                                                                                 | S MAN GUALITY COUTS.                      | OL BROWP THAT                   | AIR CONTANINATE                    | 98 18 TH            |        |

GENERAL STRANICS

|   | BIAIRIG |
|---|---------|
| , | =       |
|   | CORAVIR |

| 1131EN<br>14-3131EN                                                                                                      | TEST/REPORT MOSES<br>FAILED COMPOSENT MANE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | DIF DATA BOUNCE<br>PART MUTBER                                                                                        | WENICLE<br>DATE BIF                  | SITE DIF    | 1 0<br>1 1 1                            | VENDOR NAME<br>VENDOR PART NO                                                                                                         |    |
|--------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|--------------------------------------|-------------|-----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|----|
| HTDRIG.IC-A/B<br>BUSTAINGA/VERNIER                                                                                       | AE81-0018/FC-4CO-08-088                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | COMPOST TE-PACTORY<br>E7-08333-3                                                                                      | 991                                  | 3/ <b>9</b> | 5 9                                     | PEACOCK<br>91309-3                                                                                                                    | :  |
| FAILURE MODE - OUT OF<br>MES COINCIDENT WITH MEN<br>SE PANDLED METHOUT A OR<br>R FLIGHT.                                 | PAILUKE HODE - OUT OF SPECIFICATION. THE SUSTAINER HYDRANLIC ACCUMULATOR INDICATED EXCESSIVE LOSS OF PRESSUNE AT TI<br>Hes coincident with sevene engine homenet, the accumulators here charged to 1000 pis. Large hydraulic summes c<br>Be handled without a characteristic drop in accumulator pressume because accumulators mot charged to 3000 pis as fo<br>R FLIGHT.                                                                                                                                                                          | LIC ACCUMALATOR INDICATE NEW MESTING TO SE                                                                            | ATED ENCE<br>00 PIA. L<br>MAATORS II | MACE HTDA.  | 9 3 0                                   | INDICATED ENCESSIVE LOSS OF PRESSURE AT TI<br>TO 1000 PIA. LARGE HTDRAILE SURICE CANNOT<br>ACCURILATORS NOT CHARGED TO 3000 PIA AS FO |    |
| BYBIEN EFFECT-ENRATIC OFCHATION.                                                                                         | OFERATION.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                       |                                      |             |                                         |                                                                                                                                       | ·· |
| WENTCLE EFFECT-NOME.                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                       |                                      |             |                                         |                                                                                                                                       |    |
| CORRECTIVE ACTION-MOM                                                                                                    | COMECTIVE ACTION-MOME, DURING PLISHT, ACCUMALATORS AND CHANGED TO 3000 PIA. THE MYDRAMALIC BURGES WILL WIT AFFECT T<br>E statem causing loss of Pressume.                                                                                                                                                                                                                                                                                                                                                                                          | MARCED TO 2000 PIA.                                                                                                   | NE MYBRAN                            | LIC BUNCE   | 726                                     | L WAT AFFECT T                                                                                                                        |    |
| HTDGAULIC-A/B<br>BUSTAINER/VERNIER                                                                                       | M-04-220<br>ACTUATOR ABBINATE BERNO MALVE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | FAR<br>27-65311-601                                                                                                   | 83E<br>610407                        | 971         | 5 0                                     | YES INTERSTATE                                                                                                                        |    |
| FAILURY COE-SHORT UN<br>THE PROJECT OF A MALA<br>MOMETS. THE THEREASE<br>ANDUELMS THE ACTUATION<br>COMMECTIVE ACTION-THE | FAILURY //DE-SHURT ULECT)-AMGULAR DISPLACEMENT OF THE WERHIGK DUSINE DURING APPLICATION OF MYDIAULIC PRESS THE PRINCE OF A MALL REGUEST IS ATTRIBUTABLE TO THE GROUNDING OF LEAD A THROUGH EITHER THE WALNE CASE OR THROUGH EITHER THE WALNE CASE OR THROUGH EITHER WALNE CASE OR THROUGH EITHER WE THE PROPERTY OR THROUGH EITHER WE THE PROPERTY OR ACTUALIZE TO ROTATE THE WERHIGK EIGHTH.  **CORRECTIVE ACTION-THE WEADON INTERSTATE HAS REMODINED APPLETED UNITS BY INCREASING THE CLEARANCE AND TO THE PROPERTY OF THE PROPINE THE DISPLACE. | MHICH CHAINE DAINE A<br>MOINE OF LEAD A THROUGHLY UPIET THE BALANE<br>COSL UPIET THE BALANE<br>CITO LINES BY INCREASE | FOR THE PARTY OF BUILDING            |             | CAS CAS CAS CAS CAS CAS CAS CAS CAS CAS | WALNE CASE OR THE MOTOR THE THE THE THE THE THE THE THE THE THE                                                                       |    |
| DIO.                                                                                                                     | THE MECEPIACIE.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                       | ,                                    |             |                                         | VER BEIBON 1970                                                                                                                       | -  |
| Mydraul I c – a / 8<br>Bustaine a / Verier                                                                               | MO-10-044<br>BUSTAINER HTDRAMEIC TAME, MEAN.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 27-00332-5                                                                                                            | 418814                               |             | 9                                       | 3                                                                                                                                     |    |
| FAILURE HODE-INTERNAL CORRECTIVE ACTION-PAIL                                                                             | FAILURG MODE-INTERNAL LEAA. LEAAAEE OF BAB ACROBA THE PISTON TO THE OIL SIDE.<br>CORRECTIVE ACTION-FAILURE NOT CONFIRMED. NO CORRECTIVE ACTION TANEDS.                                                                                                                                                                                                                                                                                                                                                                                             | TON TO THE OIL BIDE.                                                                                                  |                                      |             |                                         |                                                                                                                                       |    |
| MTD844.1C-4/8                                                                                                            | 66-10-00-                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 740                                                                                                                   | 2                                    | ξ           | 50                                      | VES PEACOCK ENG.                                                                                                                      |    |
| BUBIS INCH / VERNIER                                                                                                     | ACCUMANTOR, OPENIO                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                       |                                      |             | }                                       |                                                                                                                                       |    |

GENERAL DYNANICS CONVAIR DIVISION

| 11 101 100                                              | CONAIR DIVISION                                                                                                                                                                         | DIVIDION                                                                      |                                 |                    |                                        |                                         |
|---------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|---------------------------------|--------------------|----------------------------------------|-----------------------------------------|
|                                                         | DIFFICULTIES REVIEW-HYDRAULIC SYSTEM-AIRBORNE                                                                                                                                           | DRAULIC SYSTEM-AIRBON                                                         | Ä                               |                    |                                        |                                         |
| 31216A<br>2.6 - 21216A                                  | TEST/REPORT HUMBER<br>FAILED COMPOMENT MANE                                                                                                                                             | DIF DATA BOUNCE<br>PART NUMBER                                                | VENICLE BITE DATE DATE          | BITE PRI           | WENDOR MANE<br>WENDOR PART NO          |                                         |
| CONNECTIVE ACTION - UM                                  | UMCHOMI. FAILURE NOT CONFIRMED.                                                                                                                                                         |                                                                               | <b>-</b>                        |                    |                                        |                                         |
| MTDRAULIC-A/B<br>BUBTAIMER/VERNIER                      | PB-10-056<br>BUSTAINER HTDRAULIC PUMP                                                                                                                                                   | FAR<br>27-08580-1                                                             | 610616 CTR                      |                    | TES VICKERS<br>NO AA-60401-L-E         | :                                       |
| FAILURE MOG-LEAR-EXTEL<br>BAPTER PLATE, POSSIBLE I      | PAILUME MODE-LEAK-EXTERNAL-LEAKAGE OF BEVERAL DROPS PER NIMUTE AROUND CHE OF THE POUR HOURTIMS STUDS ON THE INLET<br>DAPTER PLATE. POINIBLE FOREIGH PARTICLE UNDER FLANGE BEAT OF PURP. | INUTE AROUAD ONE OF 1                                                         | HE POUR ROURT                   | # 97.08            | ON THE INCET A                         |                                         |
| CORRECTIVE ACTION-WENDOR NAS HOTIFIED                   | OR MAS MOTIFIED OF THIS AMELYSIS.                                                                                                                                                       |                                                                               |                                 |                    |                                        |                                         |
| Mydraul?c-a/b<br>Bustainer/Verijer                      | 88-10-039<br>ACCURALATOR, O-81165                                                                                                                                                       | FAR<br>27-06553-3                                                             | <b>6402</b> 17                  | <b>2</b> 6         | YES PEACOCH ENGR.<br>NO CO.<br>81305-3 | 1                                       |
| FAILURE MODE-LEAR-INTE                                  | FAILURE MODE-LEAR-INTERNAL PRE-CHARGE GAS LEARING PAST THE PISTON AT A HIGH RATE.                                                                                                       | I PISTON AT A MICH RA                                                         | نز                              |                    |                                        |                                         |
| COMPECTIVE ACTION-WINDOWN INC. WHEN SUBJECTED TO HIGH   | PUDDOR WAS NOTIFIED TO INPROVE HIS SUMLITY CONTROL. PROBABLE TO HIGH TEMPERATURE DURING SUMLIFICATION. SEE CLAIM REPORT.                                                                | IT CONTROL. PROBABLE. BEE CLASS REPORT.                                       | CAUSE OF FAILURE WAS FAILURE OF | i eus juni         | ALLINE OF O RE                         | 515h-a                                  |
| MYGRALEIC-A/B<br>BUSTAINER/YERNIER                      | 64-10-065<br>HTDRALL C STAGING DISCONGECT                                                                                                                                               | FAR<br>87-08596-3                                                             | 61.0E00 VITA                    | ž g                | YES PEACOCK<br>NO SIRBO-S              | *************************************** |
| FAILURE MODE-LEAK-EXTES                                 | IA-ETTERMI-LEALAGE WILE STRTER INS PRESMATZED TO 100 PSI.                                                                                                                               | A12ED TO 10G PSI.                                                             |                                 |                    |                                        |                                         |
| CORRECTIVE ACTION-PAILURE<br>RECOMEL MUST BE INSTRUCTED | NOT CONTINED. SOLDEN BAN B.C.<br>TO ALIGH THE DISCONECT PROBES                                                                                                                          | GROUP WES ALERTED TO THE PROBADIN AND ABVISED THAT FIELD PE<br>BEFORE MATING. | THE PROBLEM A                   | Ø A <b>0</b> V15£1 | ) That field PE                        |                                         |
| HYDRAULIC-A/S<br>BUBTAINER/VERNIER                      | AC-51-0065/82-502-A2-06<br>ACCUMAATOR                                                                                                                                                   | CAP11VE<br>87-06553-8                                                         | # \sec.                         | 5.8                | TES PEACOCK<br>NO 51205-3              | 41000                                   |
| FAILURE MOE-LEAR-EXTER                                  | IA-EXTERNAL-POST AUS INSPECTION REVEALED A SMALL EXTERNAL HYDRAULIC PLUID LEAR.                                                                                                         | OMIL EXTERML WURL                                                             | AIC PMB LE                      | ż                  |                                        | ······································  |
| STRIEM EFFECT-MOME.                                     |                                                                                                                                                                                         |                                                                               |                                 |                    |                                        |                                         |
| WENTELE EFFECT-NORE.                                    |                                                                                                                                                                                         |                                                                               |                                 |                    |                                        |                                         |

CORRECTIVE ACTION-ING BUSTAINER HYDRAULIC ACCUMULATOR WAS REPLACED POLLONINS RUN 1905.

\*\*\*\*\*\*\*\*\*\*\*\*\*

GENERAL BYMANICA CONVAIR BIVISION

|                                                                 | BIFFICUATIES REVIEW-HYDRAULIC SYSTEM-AIRDORNE                                                                                                       | MAULIC BYSTEN-AIRBOM                                                          | ¥                |          |        |                                               |                                         |
|-----------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|------------------|----------|--------|-----------------------------------------------|-----------------------------------------|
| 818-2737EH                                                      | TESTARFORT MURER<br>FALLED COMPOSENT MANE                                                                                                           | BIF DATA BOUNCE<br>PART HUMBER                                                | WHICLE BITE BLF  | 11 PL    | 25     | PEZ NENDOR MANE<br>OTH VENDOR PART NO         |                                         |
| NYDRAULIC-A/B<br>BUSTAINER/VERNIER                              | AC-41-0061/46-508-A2-04                                                                                                                             | CAP11 WE<br>27-043583-3                                                       | **               | 3 E      | 5 ខ    | PEACOCA<br>\$1305-3                           | ***                                     |
| FAILURE HOSE-OUT OF SPEC                                        | OF BPECIFICATION, THE LEVELING OFF OF PRE-<br>PPOCAULIC ACCUMALATOR PIRTON BOTTONING NA                                                             | PRESSURE DECAT WAS NOTED AT BUSTAINEN CUTOFF PLUS 0.45 SECON WAS NOT EVIDENT. | 74 86 74         | INCH CUT |        | 100 0.45 ACCON                                |                                         |
| STATEM EFFECT-MOME.                                             |                                                                                                                                                     |                                                                               |                  |          |        |                                               |                                         |
| WHICLE EFFECT-HOM.                                              |                                                                                                                                                     |                                                                               |                  |          |        |                                               |                                         |
| CORRECTIVE ACTION-LARINGIAN.                                    | ż                                                                                                                                                   |                                                                               |                  |          |        |                                               |                                         |
| HTDRAULIC-A/B<br>SUSTAINER/VERNIER                              | GA-10-064<br>HTDRAULIC MELIEF VALVE, POPPET                                                                                                         | FAR<br>27-08500-1                                                             | 200              |          | 20     | V116500<br>A-61071                            | 9                                       |
| FAILURE HODE-FAIL DURING OPER<br>URE WAS BELOW ALLON'D HINIMUM. | PAILURE HODE-FAIL DURING OPERATION-HYDRAULIC UNIT PLOM- METER NEABURDENTS NEAR THE BASIS POR PAILURE, RESEAT PRESS<br>ME HAS BELOM ALLOW'D HINIMAN. | TO HEADURDENTS YEAR                                                           | 74 P44           | 24 AD    |        | RESEAT PREAS                                  |                                         |
| CORRECTIVE ACTION-PAILUR                                        | CORPECTIVE ACTION-PAILURE WAS NOT CONFINED. VENDOR HAS BEEN INFORMED OF THIS RESEAT BIBCREPANCY AND RESULSTED TO M                                  | DE INFORMED OF THIS ST<br>TRATION, PRIOR TO LA                                | EDEAT BLOW<br>T. | CHEPANET | 9      | COLESTED TO M                                 |                                         |
| HYDRAULIC-A/B<br>BUSTAINER/VERNIER                              | 96-04-184<br>ACTUATOR, BEAL                                                                                                                         | FAR<br>E7-06173-1                                                             | 10 mm            | 878      | 20     | VEB INTERSTATE<br>NO ETPE-S                   | 304                                     |
| FAILURE MODE-LEAR-EXTERN<br>. OIL BELIEVED TO MANE CO.          | L-EXTERNAL, UNIT WAS REPOYED PROM THE MISSILE SECAUSE<br>MANE COLLECTED FROM A BOURCE STHEM THAM THE ACTUATOR.                                      | LE BECAUBE THE BHAFT<br>E ACTUATOR.                                           | 3                | 3<br>8   | 5<br>0 | THE BHAFT BEAL LEASED WESH NOT MODER PRESSURE |                                         |
| CORRECTIVE ACTION-NOME. C                                       | CAUSE COLLD NOT BE DETERMINED.                                                                                                                      |                                                                               |                  |          |        |                                               |                                         |
| HTDRALE, IC-A/B<br>BUSTAINER/VERMIES                            | AA81-D011/P8-808-00-08<br>Beal                                                                                                                      | COUNTDOM                                                                      | 84.8             | 11 604   | 20     | TES INTERSTATE                                | *************************************** |
| FAILURE MODE-LEAR-EXTERNA                                       | -EXIERNAL. HYDRAULIC LEAR AT WE EMBING BIMBAL MARTI. LEAR PROBABLY BUG TO BEAL PROBLEM.                                                             | DAL BUAFT. LEAR PROB.                                                         | - Ne 14          | ס פיני ב | ROBLE  | -                                             |                                         |
| BYBICH CPFECT-HOLE.                                             |                                                                                                                                                     |                                                                               |                  |          |        |                                               |                                         |
| WHICH EFFET-COUNTDOM                                            | WENCLE EFFECT-COUNTDOWN ABONTED AND RE-SCHEDALLD. COUNTDOM ABONTED TO REPLACE VE EMSINE.                                                            | N ABORTED TO REPLACE                                                          | W Delik          |          |        |                                               |                                         |
| CONNECTIVE ACTION-N'PLACE                                       | vs tosing.                                                                                                                                          |                                                                               |                  |          |        |                                               |                                         |

CORVAIR BIVISION

18 104 1986

# CORVAIR BIVIBION

|                                                    |                                                                                                                                                                                                                                        |                                                   | !                        |                         |            |                               | _            |
|----------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|--------------------------|-------------------------|------------|-------------------------------|--------------|
| 878161<br>808-818163                               | TESTARPORT NUMBER PAILED COMPONENT NAME                                                                                                                                                                                                | DIF DATA BOUNCE<br>PART NUMBER                    | WENICLE<br>DATE BI?      | 11.0E 01F               | 7 ž        | VENDOR NAME<br>VENDOR PART NO |              |
| HTDRAULIC-A/B<br>BUBTAZHER/VERMIER                 | 98-04-184<br>ACTUATOR, BEAL                                                                                                                                                                                                            | FAR<br>27-06573-1                                 | 97 JB                    | 28                      | <b>2</b> 8 | TES INTERSTATE<br>NO 8798-1   | ***          |
| FAILURE MODE-LEAR-EXTER<br>LEAR COALD MOT BE COMFI | FAILUME HODE-LEAR-EXTERNAL-UNIT WAS REHOWED FROM THE HISSILE BECAUSE THE SHAFT SEAL LEARED WHEN NOT UNDER PRESSURE.<br>Lear could not be comfirhed. Oil Beliewed to have collected from a sounce other than the actuaton.              | BBILE BECAUSE THE SHAP<br>ETED FROM A SOUNCE OTH  | T BEAL LEA<br>ER THAN TH | KED WHEN<br>E ACTUATO   | <u>.</u>   | ACER PRESSURE.                |              |
| CORRECTIVE ACTICY-NONE.                            | . CAUSE COULD NOT BE DETERMINED.                                                                                                                                                                                                       |                                                   |                          |                         |            |                               |              |
| HTDRAULIC-A/B<br>BUSTAINER/VERNIER                 | 96-04-164<br>ACTUATOR ASSEMENT, SEAL                                                                                                                                                                                                   | FAR<br>27-65311-9                                 | <b>6</b> 101 <b>03</b>   | 58                      | <u> </u>   | YES INTERSTATE<br>NO          | 5,500        |
| FAILURE MODE-LEAK-EXTER                            | FAILURE MODE-LEAK-EXTERMAL. UNIT MAS REMONTD PROM THE MISSILE BECAUME THE SMAPT BEAL LEAKED MMEM NOT UNDER PRESSURE.<br>. Leak coald not be punctifhed, oil believed to mane policited prom a bounce other than the actuator.          | 1881LE BECAUME THE SHAI<br>ECTED PROH A BOUNCE OF | FT BEAL LE               | AKED IONEN<br>NE ACTUAT | ğ ş        | UDER PERSURE                  |              |
| CORRECTIVE ACTION-NOME.                            | . CAUSE COULD NOT BE DETERMINED.                                                                                                                                                                                                       |                                                   |                          |                         |            |                               |              |
| HYDRAUL IC-A/B<br>BUSTATHER/VERNIER                | 96-04-164<br>ACTUATOR ASSEMBLY, SEAL                                                                                                                                                                                                   | FAR<br>27-65514-618                               | <b>\$1010</b>            | 8                       | 25         | TES INTERSTATE                | 9            |
| FAILURE MODE-LEAK-ERTER                            | FAILUME MOE-LEAK-EXTERNAL. UNIT WAS RENOWED FROM THE MISSILE BECAURE THE SHAFT SEAL LEAKED MHEN NOT UNDER PRESSURE<br>Leak coald not se comfirmed. Oil believed to have collected from a source other than the actuator.               | ISSILE BECAUSE THE SHA<br>ECTED FROM A BOLACE OF  | FT BEAL LE<br>MER THAN T | AKED MHEN<br>HE ACTUAT  | žg         | Junes Jul Wilden              | -            |
| CORRECTIVE ACTION-HOME.                            | . CAUSE COALD NOT BE DETERMINED.                                                                                                                                                                                                       |                                                   |                          |                         |            |                               |              |
| HYDRAULIC-A/B<br>BUSTAINER/VERNIER                 | PS-04-164<br>ACTUATOR ABSENDLY, BEAL                                                                                                                                                                                                   | FAR<br>87-55318-003                               | 201010                   | 5                       | ភ្នំ ទ     | TES INTERSTATE<br>NO          | 3 5          |
| FAILURE HODE-LEAK-EXTER                            | FAILUME MODE-LEAK-EXTERNAL. UNIT NAS REMOYED FROM THE MISSILE BECAURE THE BWAFT BEAL LEAKED WHEN NOT UNDER PRESSUNG<br>. LEAK COULD HOT SE COMFIRMED, OIL BELIEVER TO MANE COLLECTED FROM A SOUNCE OTHER THAN THE ACTUATOR.            | 1881LE BECAUSE THE SHA<br>ECTED FROM A SOUNCE OF  | FT BEAL LE<br>HER THAN T | AKED WIEN               | g g        | WELL PRESSURE                 |              |
| CORRECTIVE ACTION-NOME.                            | . CAUSE COULD NOT BE DETERNINED.                                                                                                                                                                                                       |                                                   |                          |                         |            |                               |              |
| HYDRAUL I C-A/B<br>BUSTAINER/VERNIER               | 98-04-144<br>Tlambducer, Peedback                                                                                                                                                                                                      | FAR<br>87-04804-1                                 | 46<br>60-14-11           | ETA .                   | 88         | COLLINS                       | <del> </del> |
| FAILURE MODE-FAIL TO OF ME EMBALED.                | FAILUME MOSE-FAIL TO OPERATE AT PRESCRIBED TIME-DURING CMECKOUT THE V-R EMGINE TRANSDUCER PRODUCED NO OUTPUT WHEN T<br>ME EMGINE MAS CINGALLO, FAILUME COULD NOT BE CONFIRMED AT 8.5. CAUSE BELIEVED TO BE EXTERNAL TO THE TRANSDUCER. | CMCCAOUT THE V-2 EMBIN<br>T 8.8. CAUSE BELIEVED   | E TEAMBOUC<br>TO BE ESTE | ER PRODUC               | 3 7        | O OUTPUT MEN T                |              |

GENERAL BYNAMICS CONVAIR BIVISION DIFFICULTIES REVIEW-HYDRAULIC SYSTEM-AIRSORME

18 JUN 1366

| 8781EH<br>816-8781EH                                                                                                                            | TESTAREPORT MUSER<br>FAILES COMPONENT NAME                                                                                                                      | BIP DATA BOURCE<br>PART NUMBER                                                                                                       | VENICLE<br>DATE BIF | WENTELE BITE PRI |     | WENDON MAPE<br>WENDON PART NO |                                         |
|-------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|---------------------|------------------|-----|-------------------------------|-----------------------------------------|
| CORECTIVE ACTION-NOME-C                                                                                                                         | CH-NOME-CAUSE MAS NOT COMPTRINED.                                                                                                                               |                                                                                                                                      |                     | <u> </u><br>     |     |                               |                                         |
| HTDRAULIC-A/B<br>SUSTAINER/YERHIER                                                                                                              | M-04-133<br>MRYO VALWE                                                                                                                                          | FAR<br>87-04808-1                                                                                                                    | 772108              |                  | 5 9 | CADILLAC<br>PC-E7-397A        | •• 7.2                                  |
| FAILURE MODE-OUT OF TOLERANCE, WE E CT ADJUSTMENT PRIOR TO INSTALLATION. CORRECTIVE ACTION-6D/C INITIATED A EMALY CONSISTING OF ACTUATOR, SERVO | MEINE FAILED TO MA                                                                                                                                              | L WEN ZERO SIGNAL WAS APPLIED. PAILURE WAS DUE TO AN INCORNE PROCEDURE INCORPORATING BYMANIC WESTING OF THE INTEGRATED ASSTRANGOUER. | Printed 7           | EFTIR OF         | Ž Ž | TO AM INCOME<br>INTERATED ASS |                                         |
| HTDRAUL IC-A/B<br>SUSTAINER/YERNIER                                                                                                             | 98-1G-040<br>3L37A13ER STABING DISCOMECT                                                                                                                        | FAR<br>27-06559-3                                                                                                                    | 91210               | E                | 5 9 | FLACOCA<br>\$1205-3           | :                                       |
| FAILURE MODE-CONTARINATI                                                                                                                        | FAILUNE MODE-CONTANINATION-SUSPECTED OF CONTAINING EXCESSINE CONTANINATION.<br>CORRECTIVE ACTION-MORE RIGID MEASURES TO PREVENT CONTANINATION MANE REEN TAMEN.  | NE CONTANINATION.<br>TION NAWE BEEN TANDE                                                                                            | •                   |                  |     |                               |                                         |
| HTDRAULIC-A/B<br>BUSTAINER/VERNIER                                                                                                              | 96-10-060<br>SURTAINER ACTUATOR ASSENSELY                                                                                                                       | FAA<br>R7-83314-613                                                                                                                  | 97310               | £                | 5 3 | VES INTERSTATE                | :                                       |
| FAILURE MODE-CONTANIMATI CORRECTIVE ACTION-10RE R                                                                                               | FAILURE HODE-CONTANIMATION-BURNECTED OF CONTAINING EXCESSIVE CONTANIMATION.<br>CORRECTIVE ACTION-1001E RIGID HEASURER TO PREVENT CONTANIMATION MANE BEEN TAMEN. | NE CONTANINATION.<br>TION MANE BEEN TANEN                                                                                            | •                   |                  |     |                               |                                         |
| HTDRAULIC-A/B<br>SUBTAINER/YCRNIER                                                                                                              | 96-10-060 FAR sustainer mgrunn mise off Discoung 27-06337-3 C1                                                                                                  | FAR<br>E 87-00587-3                                                                                                                  | 600<br>61210        | £                | 58  | 8-64216<br>PLACOCA            | *************************************** |
| FAILURE MODE-CONTANIMATI                                                                                                                        | PAILUME MOE-CONTANINATION-BUANCETED OF CONTAINING ENCESSIME CONTANINATION.                                                                                      | ME CONTANINATION.<br>TION MANE BEEN TAKEN                                                                                            | <u>.</u>            |                  |     |                               |                                         |
|                                                                                                                                                 |                                                                                                                                                                 |                                                                                                                                      |                     |                  |     |                               |                                         |

GENERAL BYNAMICS CONVAIR BIVISION

CONVA I

\*\*\*\* \*57 \*1

DIFFICULTIES REVIEW-HYDRAULIC SYSTEM-AIRBORNE

| SUS-STEN                                                                                                   | TEST/REPORT NUMBER<br>FAILED COMPONENT NAME                                                                                                                                                                                                                                                                                                                                                                                                                                                | DIF DATA SOUNCE<br>PART NUMBER                                                             | WENTELE<br>DATE DIF                                 | WENTELE BITE PAI                  |                                                    | VENDOR MANE<br>VENDOR PART NO                       |                                         |
|------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|-----------------------------------------------------|-----------------------------------|----------------------------------------------------|-----------------------------------------------------|-----------------------------------------|
| HYDRAULIC-A/B<br>Bustainer/Vermier                                                                         | 98-10-060<br>SUBTAINER TANK                                                                                                                                                                                                                                                                                                                                                                                                                                                                | FAR<br>87-04512-5                                                                          | 600                                                 | 5                                 | VES BENGOM                                         | 3                                                   | *************************************** |
| FAILURE MODE-CONTANTINA CORRECTIVE ACTION-MORE                                                             | FAILUME HOGE-CONTAHINATION-SUSPECTED OF CONTAINING ENCEDSINE CONTANINATION.<br>CORRECTIVE ACTION-WORE RIGID MEASURES TO PREVENT CONTANINATION MANE BEEN TAKEN.                                                                                                                                                                                                                                                                                                                             | IVE CONTANINATION.<br>MION MAVE BEEN TAKEN                                                 | ٠                                                   |                                   |                                                    |                                                     |                                         |
| MYDRAULIC-A/B<br>BUSTAINER/VERNIER                                                                         | AEGO-0730/P3-502-00-04<br>013COHECT, R13EOFF                                                                                                                                                                                                                                                                                                                                                                                                                                               | FLICHT<br>27-06556-3                                                                       | # # # # # # # # # # # # # # # # # # #               | 13<br>4010                        | VES PEACOCK<br>NO \$1300-3                         | 9-3<br>0-3                                          | 1004                                    |
| FAILURE MODE-STRUCTURAL<br>THE EMGINE EMAUST.                                                              | FAILUME MODE-STRUCTURAL. THE MIGH PRESSURE HYDRANLIC RIBE-OFF DISCONDECT RUPTURED BUE TO EXCESSIVE HEAT INPUT PROM<br>He engine exhaust.                                                                                                                                                                                                                                                                                                                                                   | -OFF DISCONDECT AUPTU                                                                      | 20 04 X                                             | CKCESS!                           | VE MEAT II                                         | MPUT PROM                                           |                                         |
| SYSTEM EFFECT-DEPLETION VEHICLE EFFECT-LOSS OF                                                             | STRIEM EFFECT-DEPLETION OF LIANID SUPPLY RESULTING IN LOSS OF CONTROL OF EUSTAINER AND MEMMIER ACTUATORS.<br>WEMICLE EFFECT-LOSS OF WEMICLE STABILITY AFTER BCO DUE TO LACK OF CONTROL OWER SUBSINER AND WEMMIER EMSIMES.                                                                                                                                                                                                                                                                  | IS OF CONTROL OF EUSTA<br>LACK OF CONTROL ONER                                             | INER AND 1                                          | EARLER A                          | CTUATORS.                                          | Ĕ.                                                  |                                         |
| CORRECTIVE ACTION-1NST<br>ECT RISEOFF DISCONNECT (<br>IONAL TURING CLANPS CHAI<br>D RISEOFF DISCONNECT ME, | CORRECTIVE ACTION-INSTALLED CHECK VALVES FORMARD OF RISEOFF AND STAGING DISCONNECTS. IMBTALLED COVER PLATES TO PROT<br>ECT RISEOFF DISCONNECT PANELS DURING FLISHT, REROUTED STSTEM TWING TO ENSURE SUFFICIENT CLEARANCES. IMSTALLED ADDIT<br>TOWN: THEING CLAMPS CHANGED CERTAIN ALUMINAN THEING TO CRES STELL, MODIFIED SUSTAINER WIDRALLIC FUND SHAFT, INSTALLED<br>D RISEOFF DISCONNECT HEAT SMIELDS. STRENGTHENED SUSTAINER ENGINE CONTROL MANIFOLD AND WYDRALLIC SYSTEM RELIEF VALUE | FF AND STAGING DISCONING TO ENSURE 0<br>TEN TUGING TO ENSURE 0<br>TEN STEEL WOOFFICE SHAPP | MECTS. IM<br>MATICIENT<br>TAINER HT.<br>N.D. AND HT | STALLED C<br>CLEARANC<br>MANUIC P | OVER PLATI<br>ES. INSTAI<br>UNF SHAFT<br>VSTAN REL | ES TO PROT<br>LLEG ADOLT<br>. RASTALLE<br>IEF VALVE |                                         |
| HYDHAULIC-A/B<br>BUSTAIMER/VERNIER                                                                         | AC-60-0050/81-511-A7-05<br>8U8T, TAM ACTUATOR PLEX HORE                                                                                                                                                                                                                                                                                                                                                                                                                                    | CAP11VE<br>87-06400-38                                                                     | % 601133                                            | =                                 | VES RESISTOFLER<br>NO R-RIEES-39                   | RESISTOFLER<br>R-21225-30                           | 9                                       |
| FAILURE MODE-EXTERNAL LEAR                                                                                 | LEAR                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                            |                                                     |                                   |                                                    |                                                     |                                         |
| STSTEN EFFECT-NONE.                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                            |                                                     |                                   |                                                    |                                                     |                                         |
| WEMICLE EFFECT-NOME.                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                            |                                                     |                                   |                                                    |                                                     |                                         |
| CORRECTIVE ACTION-FLEX                                                                                     | IOH-FLEX HOSE HAS REPLACED.                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                            |                                                     |                                   |                                                    |                                                     |                                         |
| HTGRAULIC-A/B<br>BUSTAINER/VERNIER                                                                         | AE60-0750/P3-5CO-01-04<br>PEEDBACK TRANSOUCER                                                                                                                                                                                                                                                                                                                                                                                                                                              | COMPOSITE-4 FACT<br>87-04804-1                                                             | <b>60</b> 1117                                      | 3                                 | YES CRESCENT<br>NO MC-108-4                        | CRESCENT<br>MC-100-4E                               |                                         |

STRICH EFFECT-: WROPER ANALOG BIGHALB. PLIGHT CONTROL STREM LOST PREDBACK INFORMATION AS TO WERNIER EMAINE POLITION R FOR ATTITUDE CONTROL.

FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME, NO OUTPUT 'GON VERNIER TAN ROLL HYDRAULIC ACTUATOR PEEDBACK WAEN E MEINE POSITION WAS VARIED.

Manter a asserta\_cresons type asserte SR.

SCHERAL BYNAMICS CONVAIR DIVISION

11 104 1106

4

| ****                                                                                                                       | DIFFICULTIES REVIEW-HYDRAULIC STITEM-AIRBORNE                                                                                                                                                                                                                                                                                                                                           | IN.IC BY ITEN-AIRBORN                                                       |                                                          |                                      |                                                                         | i       |
|----------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|----------------------------------------------------------|--------------------------------------|-------------------------------------------------------------------------|---------|
| 8787EN<br>846-878                                                                                                          | TEBTARFORT MUMBER<br>FAILED COMPONENT MANE                                                                                                                                                                                                                                                                                                                                              | DIF DATA BOURCE<br>PART NUMBER                                              | VEHICLE<br>DATE IF TH                                    | SITE PRI                             | WENDOR NAME<br>WENDOR PART NO                                           |         |
| CORRECTIVE ACTION-UNIT R                                                                                                   | CORRECTIVE ACTION-UNIT REMOVED AND RETURNED FOR INSPECTION. REPLACED BY ANDTHER UNIT. SMODA466.                                                                                                                                                                                                                                                                                         | REPLACED BY ANDTHER                                                         | UNIT. 1860                                               | . 994                                |                                                                         | ••••    |
| HYDRAULIC-A/B<br>BUBTAINER/VEANIER                                                                                         | AC-60-0047/31-510-46-05<br>SUSTAINEN PITCH ACTUATOR, PLEN HOD<br>E                                                                                                                                                                                                                                                                                                                      | CAPTI VE<br>87-C6871-8                                                      | 16 81<br>601117                                          | 1 OH                                 | YES AEROGUIP<br>NO 677841-8-0218                                        | 90404   |
| FAILURE MODE-LEAR-EXTERN<br>ERED DURING POST TEST INS                                                                      | R-EXTERNAL, FLEK 16 <b>36 FOR PRESSURE SIDE OF THE SUSTAINER PITCH ACTUATOR LEAKED. THE LEAK HAS DISCOV</b><br>Test inspection.                                                                                                                                                                                                                                                         | INE BUSTAINER PITCH                                                         | ACTUATOR LE                                              | 146 - 144                            | LEAK WAS DISCOV                                                         |         |
| SYSTEM EFFECT-HOME.                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                         |                                                                             |                                                          |                                      |                                                                         |         |
| WENTELE EFFECT-NOME.                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                         |                                                                             |                                                          |                                      |                                                                         |         |
| CORECTIVE ACTION-FLEK HOSE MAS REPLACED.                                                                                   | COSE MAS REPLACED.                                                                                                                                                                                                                                                                                                                                                                      |                                                                             |                                                          |                                      |                                                                         |         |
| HYDRAU IC-A/B<br>BUSTAINER/VERNIER                                                                                         | 90-04-151<br>WENLER ACTUATOR ASSEMBLY, O-RIMS                                                                                                                                                                                                                                                                                                                                           | PAR<br>27-65312-603                                                         | 7E WTA                                                   |                                      | YES INTERSTATE<br>HO                                                    | 16113   |
| FAILURE MODE-ERRATIC OPERATION. MAS DUE TO A CUT O-RING ALLONING                                                           | ATIC OPERATION. THE WERHIER ACTUATOR MONED MAND OWER TO THE VAN PORITION ON A MALL BISMAL. FAILURE<br>O-RING ALLOWING BUFFICIENT LEARAGE TO CAUME THE ACTUATOR TO OPERATE INPROPERLY.                                                                                                                                                                                                   | MAD OVER TO THE YAN<br>THE ACTUATOR TO OVE                                  | POSITION O                                               | A MALL B                             | SMAL. FAILURE                                                           |         |
| CORRECTIVE ACTION-40/C I                                                                                                   | CORRECTIVE ACTION-60/C INITIATED REVISED ACCEPTANCE PROCEDURES INCORPORATING DYNAMIC TESTING OF THE INTEGRATED ASSE                                                                                                                                                                                                                                                                     | NES INCOMPORATING DY                                                        | MARIC TESTS                                              | # OF THE                             | INTEGRATED ASSE                                                         | ·       |
| MYDRAULIC-A/B<br>BUSTAIMER/VERNIER                                                                                         | AE80342/P3-503-00-03<br>D13COMECT R13E0FF                                                                                                                                                                                                                                                                                                                                               | FL16w1<br>R7-06556-3                                                        | M 13                                                     |                                      | VES PEACOCK                                                             | •• 7963 |
| FAILURE MOC-STFUCTURAL.                                                                                                    | FAILUME HOST-STRUCTURAL. THE MIGH PRESSURE MYDRAULIC RISECTP DISCOMENT RUPTURED BUR TO EXCESSIVE HEAT EMPUT FROM T<br>E ENGINE EARAUST.                                                                                                                                                                                                                                                 | PERCONECT AUPTURE                                                           | D 946 70 CF                                              | J. 7416637                           | AT EMPUT PROM T                                                         |         |
| BYBTEN EFFECT-DEPLETION                                                                                                    | PLETION OF LIAUID SUPPLY RESULTING IN LOSS OF CONTROL OF BUSTAINER AND VERNIER ACTUATORS.                                                                                                                                                                                                                                                                                               | OF CONTROL OF BUSTAL                                                        | HER AND WER                                              | NER ACTUA                            | ras.                                                                    |         |
| MEMICIE EFFECT-LOSS OF W                                                                                                   | WENICLE BIABILITY AFTER SECO DUE TO LACA OF CONTROL OWER BUSTAINER AND WENLIER EMINES.                                                                                                                                                                                                                                                                                                  | LACA OF CONTROL OVE                                                         | PUSTAINES.                                               | NO WANTE                             | A ENGINES.                                                              |         |
| CORRECTIVE ACTION-INSTAL ECT RISCOFF DISCONNECT PA IONAL TUBING CLANDS. CHAN ED RISCOFF DISCONNECT WEA MOUNTING BRACKETRY. | CONTECTIVE ACTION-INSTALLED CHECK VALVES FORMARD OF RISEOFF AND STASING DISCONMECTS. INSTALLED COVER PLATES TO PROT<br>ECT RISEOFF DISCONMECT PANCES DURING FLIGHT, RENOVIED SYSTEM TUBING TO ENSURE SUFFICIENT CLEARANCES. INSTALLED ADDIT<br>FOR RISEOFF DISCONMECT HEAT SHIELDS. STRENGTHEND TUBING DUSING CONTROL NAMIFOLD AND HYDRAULIC SYSTEM RELIEF VALVE<br>MOUNTING BRACKETAT. | AND BIASING DISCOMMING TO ENSURE BY BEEL, HODIFIED BUT WEINE CONTROL MANIFE | ECTS. INSTA<br>PPICIENT CL<br>TAINER HYDR<br>LB AND HYDR | LLED COVER<br>LARANCES.<br>NULIC PUM | PLATES TO PROT<br>INSTALLED ADDIT<br>SMAFT. INSTALL<br>SER RELIEF VALVE |         |
|                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                         |                                                                             |                                                          |                                      |                                                                         | -       |

GENERAL BYNAMICS CONVAIR BIVISION

18 JUN 1866

| 9901 NOT 51                                                          | DIFFICULTIES REVIEW-MYDRAULIC STRIEM-AIRBORNE                                                                                                                                                                                                                | DRAULIC BYSTEN-AIRBOM                  | ¥                        |                        |                                                                      |          |
|----------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|--------------------------|------------------------|----------------------------------------------------------------------|----------|
| STSTEM<br>SUG-STREM                                                  | TEST/REPORT NUMBER<br>FALLED COMPONENT NAME                                                                                                                                                                                                                  | DIF DATA BOUNCE<br>PART NUMBER         | VEHICLE<br>DATE DIF      | 917E                   | VEHICLE SITE PRI VENDOR HAME<br>DATE BIF TIME BIF OTH VENDOR PART NO | 3        |
| MTDRAUL I C-A/B<br>BUSTAINER/VERNIER                                 | AC-60-0046/81-809-AS-38<br>PUMP DISCHARGE LIME, 8-MUT                                                                                                                                                                                                        | CAPTI VE                               | 3£<br>401108             |                        | 7 <b>15 60</b> /C                                                    |          |
| FAILURE MODE-LEAK-EXTE                                               | FAILURE MODE-LEAK-EXTERNAL- LOGSE 8 NUT IN BUSTAINER HYDRAULIC DISCHARGE LING BISCONERED DUKING POST TEST SECURING.                                                                                                                                          | NULIC DISCHARGE LINE                   | BISCOVERED               | DUCTOR P               | 367 TEST SECURI                                                      |          |
| SYSTEM EFFECT-NOME.                                                  |                                                                                                                                                                                                                                                              |                                        |                          |                        |                                                                      | •        |
| WEHICLE EFFECT-NOME.                                                 |                                                                                                                                                                                                                                                              |                                        |                          |                        |                                                                      |          |
| CORRECTIVE ACTION-RETORAGED B NUT.                                   | CHAUED B NUT.                                                                                                                                                                                                                                                |                                        |                          |                        |                                                                      |          |
| MYDGAULIC-A/B<br>BUSTAINER/VERNIER                                   | 90-64-151<br>BUSTAINER ACTUATOR ASSENDET                                                                                                                                                                                                                     | FAR<br>27-05314-013                    | 7E<br>#01108             | 5                      | YES INTERSTATE                                                       | •        |
| FAILURE MODE-CUT OF TO<br>RECEIVED. FAILURE MAS-                     | FAILURE MODE-OUT OF TOLERANCE, DURING A MAPONE FILL AND BLEED TEST A MIGM MALL PEEDBACK WOLTAGE PROM THE ENGINE MAS<br>Received, Failure was due to improper adjustments prior to installation.                                                              | EED TEST A HIGH MALL<br>VINSTALLATION. | PEEDBACK                 | VOLTAGE FR             | 201 7HE ENGINE                                                       | •        |
| CORRECTIVE ACTION-6D/C                                               | CORECTIVE ACTION-6D/C INITIATED REVISED ACCEPTANCE PROCEDURES INCORPORATING DYNAMIC TESTING OF THE INTEGRATED ASSEMBLY CONSISTING OF ACTUATOR, SERVO VALVE, AND PEEDBACK TRANSDUKER.                                                                         | NURES INCORPORATING D                  | PHANIC TES               | 71 TO 4817             | E INTEGRATED A                                                       | <u> </u> |
| HYDRAULIC-A/B<br>BUSTAINER/VERNIER                                   | 98-10-056<br>PRESSURE GAGE                                                                                                                                                                                                                                   | FAR<br>E7-04542-3                      | \$00<br>\$010 <b>g</b> 7 | E 2                    | YES ROCHESTER HFS.                                                   |          |
| FAILURE MODE-LEAK-INTEL<br>EEL BUSMING.                              | FAILURE MODE-LEAK-INTERNAL. GAS LEAKAGE CAUBED BY A POROUG BRAZED AMEA JOINING THE BOURDON COIL TO THE STAINLESS ST<br>Tel Busming.                                                                                                                          | PRAZED AREA JOINING                    | THE BOURD                | 34 COLL 10             | THE STAIMLESS                                                        | •        |
| CORRECTIVE ACTION-VENDA                                              | CORRECTIVE ACTION-VENDOR MAS INSTRUCTED TO IMPROVE THE BUALITY OF THE BRAZE JOINT.                                                                                                                                                                           | LITY OF THE BRAZE JO                   | Ħ.                       |                        |                                                                      | ·        |
| NYDRAULIC-A/B<br>BUSTAINER/VERNIER                                   | A£60-0761/FC-4CO-01-082                                                                                                                                                                                                                                      | COMPOST TE-PACTORY                     |                          | PACTORY                | VES INTERSTATE                                                       | •        |
|                                                                      |                                                                                                                                                                                                                                                              | E7-6531                                | •1800                    | 8                      | <b>2</b>                                                             |          |
| FAILURE MODE-OUT OF TOL<br>D AT 34.1 SECOMDS, FOR A<br>AULIC STRIEM. | FAILURE MODE-OUT OF TOLERANCE UMEXPECTED NEGATIVE 0.8 VOLT VERHIER ND. R ENGINE NOVEMENT IN PITCH/ROLL ANIA OCCURAE<br>D at 34.1 seconds, for a duration of 0.04 second. This movement was attributed to air burbles in the Oll of the Midh<br>Aulic Striem. | VERNIER NO. E ENGIN                    | HOWENENT<br>TO AIR BUS   | IN PITCH/<br>MES IN TH | AOLL AXIS OCCU                                                       | 7 6      |
| BYBIEM EFFECT-ERRATIC OPERATION.                                     | OPERATION.                                                                                                                                                                                                                                                   |                                        |                          |                        |                                                                      |          |
| WENTCLE EFFECT-COMPOSIT                                              | WEMICLE EFFECT-COMPOSITE DELATED. POST-COMPOSITE TESTING REGUIRED.                                                                                                                                                                                           | Geuires.                               |                          |                        |                                                                      | <u>-</u> |
| CORRECTIVE ACTION-FILL                                               | CORRECTIVE ACTION-FILL AND BLEED OPERATION WAS PERFORMED.                                                                                                                                                                                                    |                                        |                          |                        |                                                                      |          |
|                                                                      |                                                                                                                                                                                                                                                              |                                        | -                        |                        |                                                                      |          |

SENERAL DYNAMICS CONVAIR DIVIBION

| 11 Jun 1986                                                                                                                                                     | BIFFICULTIES REVIEW-HYDRAULIC STRTEM-ALZBORNE                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | AULIC BYSTEN-ALABOR                                                                        | ¥                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                             |                                         |                                                                                |             |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|-----------------------------------------|--------------------------------------------------------------------------------|-------------|
| 373/EN<br>306-373/EN                                                                                                                                            | TEST/REPORT NUMBER<br>FAILED COMPONENT NAME                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | BIF DATA SOURCE<br>PART NUMBER                                                             | VEHICLE<br>DATE BIF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 817E                                        | - I                                     | VEHICLE BITE PRI VENDOR PART NO                                                |             |
| MYDRAULIC-A/B<br>BUSTAIMER/VERMIER                                                                                                                              | AEBO-0781/FC-4CO-01-09R<br>ACTUATOR ABBENGLY, BERNC VALVE                                                                                                                                                                                                                                                                                                                                                                                                                                                         | COMPOSITE-PACTORY<br>87-85311-8                                                            | *1600°                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                             | 7£8 11                                  | YES INTERSTATE<br>NO                                                           | •           |
| FAILURE MOLE-OUT OF SPEC<br>ED IN MACHITUDE BY APPRO<br>MALL MAS HISADJUSTED.                                                                                   | FAILURE MCE-OUT OF SPECIFICATION OR TOLERANCE-VERNIER NO. 1 YAM AXIS GINGAL: NS DURING WERNIER SOLO STAGE NAS LIMI<br>TED IN MACHITUDE BY APPROXIMATELY 11 PERCENT OF AN EXPECTED VALUE OF E.S. VOLTS. DURING YAM 6780 EXERCISE. BERYO VALVE<br>MACH MAS SIEMDJUSTED.                                                                                                                                                                                                                                             | ALUE OF 2.8 VOLTE                                                                          | ME DURING DURING TAN                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | CANICA I                                    | 000 B1                                  | NS DURING VERNIER BOLD BTAGE NAS LINI<br>During yam gyro emercibe. Bervo Valve |             |
| SYSTEM EFFECT-OPERATION TOO LOW.                                                                                                                                | 100 LOG.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                             |                                         |                                                                                | <del></del> |
| ICLE EFFECT-COMOSITE                                                                                                                                            | MEMICLE EFFECT-COMPOSITE RESCHEDULED. SYSTEMS LEVEL AND COMPOSITE TESTING RESUIRED.                                                                                                                                                                                                                                                                                                                                                                                                                               | POSITE TESTING REGU                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                             |                                         |                                                                                |             |
| CORFECTIVE ACTION-SERVO VALUE TO PREVINT RECCURRENCE.                                                                                                           | CORECTIVE ACTION-SERVO VALVE MAS REMALLED. TEST POR SERVO VALVE MULLS MAS INCLUDED IN THE SYSTEM LEVEL TEST PROCED<br>PE TO PREVENT RECCURRENCE.                                                                                                                                                                                                                                                                                                                                                                  | WINE HULLS MAS INC                                                                         | LUDED 18 To                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 3111                                        | רב עב                                   | TEST PROCED                                                                    | <i>-</i>    |
| HTDRAULIC-A/B<br>Bustainer/Vérnier                                                                                                                              | 98-04-130<br>ACTUATOR LINE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | FAR<br>E7-65314-011                                                                        | 119009                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | ETA                                         | YES 18                                  | YES INTERSTATE<br>NO                                                           | 32.7.50     |
| FAILURE MOE-OUT OF SPECIFICATION. ILURE DUE TO REVERSED COMMECTION OF D TO AUTOFILOT SIGNALS. FAILURE DUE POX. SLEVE RECESS. THIS MAS CAUSED JECTED TO 6C PSIG. | FAILURE MOCE-OUT OF SPECIFICATION, DURING SYSTEM CPECKOUT THE UNIT EXTENDED TO FULL POSITION AND REMAINED THERE. FA<br>FLUE DUE TO REVERSED COMMECTION OF HYDAULIC LINES. AFTER PROPERLY COMMECTING HYDRAULIC LINES UNIT NOULD NOT RESPON<br>TO AUTOFILOT STUMALS. FAILURE DUE TO SERVO MYLWE SPOND, BEING PROSEDED ON THE SITEETHY G. AN INCY INTO THE END OF THE S<br>POX. SLEVE RECESS. THIS WAS CAUSED BY THE REVERSED SOOD PEIG. PRESSURE ON THE END OF THE SPOOL THAT IS MORNALLY DUE<br>JECTED TO 6C PSIG. | ME UNIT EXTENDED TO<br>MOPERLY COMECTING (<br>Nº FORCED OME BIXTE)<br>6. PRESSURE ON THE ( | FULL POSITION AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND PARTIES AND | TON AND<br>THES UNI<br>THES UNI<br>THE TAIL | REMIN<br>T MONE<br>O THE<br>AT 18       | ED THERE: FA<br>D NOT RESPON<br>END OF THE S<br>NORMALLY BUS                   |             |
| CORRECTIVE ACTION-COMIZANT FIELD PERBON<br>RES WHEN INSTALLING THE SUBJECT ASSEMBLY.                                                                            | CORRECTIVE ACTION-COMMIZANT FIELD PERSONNEL WERE INFORMED OF THE FAILURE AND CAUTIONED TO ADMERE TO CORRECT PROCEDU<br>Es when installing the subject assendat.                                                                                                                                                                                                                                                                                                                                                   | F THE FAILURE AND C                                                                        | AUTIONED TO                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | ADVEAE                                      | 70 CQ                                   | MECT PROCEDU                                                                   |             |
| HYDRAULIC-A/B<br>SUSTAINER/VERNIER                                                                                                                              | 18-04-127<br>ACIUNTON ASSEMBLY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | FAR<br>87-05314-015                                                                        | 746<br>800 <b>80</b> 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | £ .                                         | =<br>5 g                                | VES INTERSTATE<br>NO                                                           | :           |
| UME MODE-ERPATIC OP<br>UMCTION IMP-II BIGHAL                                                                                                                    | FAILUME HODE-ERFATIC OPERATION-DURING SYSTEM CHECKOUT THE ACTUATOR EDHIBITED HOM-LINEAR AND EARATIC RESPONSE WITH B<br>TEP FUNCTION INPUT SIGNALS APPLIED. CAUGE NOT DETERNINED, BUT BELIEVED TO BE CONTAMINATION.                                                                                                                                                                                                                                                                                                | CTUATOR EMIBITED IN<br>IT DELIEVED TO DE CO                                                | ON-LINEAR (                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | ND CAAA'                                    | ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( | PONSE WITH B                                                                   |             |
| ECTIVE ACTION- WCAR                                                                                                                                             | CORRECTIVE ACTION- WEAR 1884ED TO INTERSTATE TO INFROME CLEAR INCSS PROCEDURES.                                                                                                                                                                                                                                                                                                                                                                                                                                   | M INCOO PROCEDURES.                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                             |                                         |                                                                                | <del></del> |
| HTDRAULIC-A/B<br>Bubtainer/Vermier                                                                                                                              | 66-10-346<br>HTDRAULIC FILIER, FITTING                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | FAR<br>87-06564-061                                                                        | fre6<br>600711                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | £78                                         | 58                                      | TES PUROLATOR PROD NO 1MC 648.35                                               |             |

PAILUME MOJE-STRUCTURAL - CRACKING IN THE NELD AREA AND LEAKING EXTERNALLY AT JUNCTION OF BOOY AND MELD ON COLLAR.

GENERAL GYNAHILS CONVAIR DIVISION

| 9901 407 51                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | CONVAIR BIVISION                                                                                                                                                                                                                                                       | VIBION                                       |                              |             |                                                                     |         |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|------------------------------|-------------|---------------------------------------------------------------------|---------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | DIFFICULTIES REVIEW-HTDRAULIC SYSTEM-AIRBORNE                                                                                                                                                                                                                          | AULIC SYSTEN-AIRBORE                         | <b>¥</b>                     |             | •                                                                   |         |
| 3737EM<br>810-373TEM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | TEST/REPORT NUMBER<br>FAILED COMPONENT NAME                                                                                                                                                                                                                            | DIF DATA SOURCE<br>PART NUMBER               | VEHICLE<br>DATE DIF T        | BITE PRI    | VEHICLE BITE PRI VENDOR IAME<br>DATE BIF TIME BIF OTH VENDOR PAT 40 |         |
| CORRECTIVE ACTION-TO RET                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | CONRECTIVE ACTION-TO RETROFIT ALL B AND E AND MODEL SS MISSILES WITH BIMILAR FILTERS WITH MOUSINSS MADE OF MELDASLE SSSTS                                                                                                                                              | ILES WITH BINILAR FI                         | LTERS WITH                   | HQU811458 P | MDE OF MELDABLE                                                     | 0.00376 |
| HTDRAULIC-A/B<br>Bubtainer/Vernier                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 90-01-060<br>Actuator Assembly, Predback Transd E7-63814-608<br>Ucer                                                                                                                                                                                                   | FAR<br>E7-65314-808                          | 330 W                        | M78 YE1     | YES SWIERSTATE<br>NO                                                | 091190  |
| FAILURE MODE-OUT OF TOLE O MEET SPECIFICATION LIMI SING AND NUT MAS LOOSE,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | FAILURE MODE-OUT OF TOLERANCE, DURING APCHE SYSTEM CHECKOUT, THE ACTUATOR PEEDBACK TRANSDUCKA MULL VOLTAGE FAILED T<br>O MEET SPECIFICATION LIMITA, FEEDBACK TRANSDUCER PROSE MES IMPROMERLY POSITIONED. TRANSDUCER PROSE LOCK WIRE MAS MIS<br>SING AND NUT MAS LOOSE, | , THE ACTUATOR PEEDS<br>MPROPERLY POSITIONES | JACK TRAMBDI<br>1. TRAMBDUCI | KER HULL V  | CLTAGE FAILED T<br>CR WIRE WAS HIS                                  |         |
| CORRECTIVE ACTION-INSTALLATION AND MAIL TO INCREASE SURVEILLANCE OF THIS AREA.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | CORRECTIVE ACTION-INSTALLATION AND MAINTENANCE INSPECTION PERSONNEL ALERTED TO POTENTIAL PROBLEM AREA AND REQUESTED TO INCREASE SURVILLIANCE OF THIS AREA.                                                                                                             | ERSONNEL ALERTED TO                          | POTENTIAL (                  | MOBUEN ARE  | A AND REQUESTED                                                     |         |
| HTDRALLIC-A/B<br>Sustatiær/vermier                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 99-04-103<br>SERVO VALVE                                                                                                                                                                                                                                               | FAR<br>27-04209-1                            | 940<br>600 <b>600</b>        | ETA YES     | YES CADILLAC                                                        | *****   |
| FAILURE MODE-LEAK, EXTERN ULD MOT BE CONFIRMED.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | FAILURE MODE-LEAK, EXTERNAL, ACTUATOR REMONED FROM MIBBILE, REPORTED TO BE LEAKING AT THE MATIMG FLANKE, LEAKAGE CO<br>LD NOT BE CONFIRMED.                                                                                                                            | REPORTED TO BE LEAR                          | Af th di                     | MATING PLA  | ME. LERRAGE CO                                                      |         |
| Concession and the second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second seco | CONTROLLING ACTION MORE. FAILURE COLLD NOT BE WERFIED NOR COLLD CAUSE BE DETERMINED.                                                                                                                                                                                   | OULD CAUSE BE DETERN                         | INED.                        |             |                                                                     |         |
| M"DRAUL IC-A/B<br>Sustainer/Vernier                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 98-10-030<br>Hydraulic Tame, beal                                                                                                                                                                                                                                      | FAR<br>27-0655£-5                            | 000510                       | 7E3<br>00   | YES BENBOW MFG. CO                                                  |         |
| FAILURE MODE-INTERMAL LES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | FAILUKE MODE-INTEPMAL LEAK-GAS LEAKAGE PAST THE PISTGM TO THE MYDRAULIC SIDE.                                                                                                                                                                                          | E HTDRAUIC BIDE.                             |                              |             |                                                                     |         |
| CORRECTIVE ACTION-FAILURE NOT CONTINUED.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | E NOT CONTINUED.                                                                                                                                                                                                                                                       |                                              |                              |             |                                                                     |         |
| MTDRAUL IC-A/B<br>Bustalmer/Vermier                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | AE60-0467/FC-4CO-02-27                                                                                                                                                                                                                                                 | COMPOST TE-FACTORY<br>87-85311               | 870<br>800813                | 20          |                                                                     |         |
| FAILURG MODE-CONTAMINATION.<br>AIR IN THE HYDRAULIC SYSTEM.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | FAILURE MOE-CONTAMINATION. VERNIER NO. 2 YAM INDICATED ERRATIC MOVENENT PRICH TO ACTIVATICE. DIFFICULTY CAUSED BY<br>IR IN THE HYDRAULIC BYBTEM,                                                                                                                       | NTIC MOVENENT PRICE                          | TO ACTIVATI                  | 19 . DIFFIC | ULTY CAUSED BY                                                      |         |
| SYSTEM EFFECT-EARATIC OPERATION.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | RATIOM.                                                                                                                                                                                                                                                                |                                              |                              |             |                                                                     |         |
| WENICLE EFFECT-COMPOSITE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | WEMICLE EFFECT-COMPOSITE RESCHEDULED. POST COMPOSITE TESTING RESUIRED.                                                                                                                                                                                                 | REDUIRED.                                    |                              |             |                                                                     |         |
| CORRECTIVE ACTION-FILL AN                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | CORRECTIVE ACTION-FILL AND BLEED OPERATION PERFORMED ON THE HYDRAULIC BYSTEM.                                                                                                                                                                                          | HYDRAULIC BYSTEN.                            |                              |             |                                                                     |         |

SENERAL DYNAMICS CONVAIR BIVISTON

CONVA

18 JUN 1066

| 2   |
|-----|
| -   |
| 2   |
| - 3 |
|     |
|     |
|     |
|     |
| -   |
|     |
| -   |
|     |
| -   |
| •   |
| 5   |
|     |
| •   |
|     |
|     |
| -   |
| -   |
| -   |
| -   |
| •   |
|     |
| Ĉ   |
| -   |
| -   |
| •   |
|     |
| - 2 |
|     |
| -   |
| -   |
| ï   |
|     |
|     |
|     |
|     |
|     |
| Ξ   |
| -   |
| _   |
| 3   |
| -   |
| ٠   |
| -   |
|     |
| -   |
|     |

|                                                              |                                                                                                                                                                                                                                                       | manual distribution                                                                                                    |                     |                  |                                 | ſ                                       |
|--------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|---------------------|------------------|---------------------------------|-----------------------------------------|
| 8787EH<br>818-818                                            | TEST/REPORT NUMBER<br>FALLED COMPOMENT NAME                                                                                                                                                                                                           | DIF CATA SOLACE PART HUMBER                                                                                            | WEMICLE<br>DATE DIF | 817E<br>71ME DIF | WENICLE BITE PAI VENDOR PART NO | ۰                                       |
| MYDRAIG IC-A/B<br>BUBTAINER/VERNIER                          | 86-04-110<br>ACTUATOR ADDENGLY                                                                                                                                                                                                                        | FAR<br>87-65818-608                                                                                                    | 64-D<br>600618      | E                | YES CLENCO ON INTE              | A 180                                   |
| FAILURE MODE-LEAR EXTERNAL.                                  | ERML.                                                                                                                                                                                                                                                 |                                                                                                                        |                     |                  |                                 |                                         |
| CORRECTIVE ACTION-NOM                                        | CH-NONE-FAILURE NOT CONFIRMED.                                                                                                                                                                                                                        |                                                                                                                        |                     |                  |                                 |                                         |
| HYDRAULIC-A78<br>SUSTAINER/VERNIER                           | 98-04-145<br>ACTUATOR ASSEMBLY, VALVE-BENVO                                                                                                                                                                                                           | FAR<br>27-65311-5                                                                                                      | 940                 | ETA              | YES INTERSTATE<br>NO            |                                         |
| FAILURE MODE-OUT OF TO<br>MEASUREMENTS WERE BEIT             | FAILURE HODE-OUT OF TOLERANCE-DURING BYSTEM CHECKOUF THE ACTUATOR CACILLATED IN THE MALL POLITION WHILE STATIC GAIN<br>Measurements here being tarem.                                                                                                 | AC'UATOR CACILLATED 1                                                                                                  | N THE MALL          | POS1710          | WILE STATIC GAS                 | 2                                       |
| CORRECTIVE ACTION- WAR                                       | CORECTIVE ACTION- WAR TO CADILLAC INFORMING THEN OF THE PROBLEMS ENCOUNTERED AS A RESULT OF CONTAMINATION AND RESUL<br>STING THEN TO INFRINCE THE SUALITY OF THE COMPONENT.                                                                           | PROBLEMS ENCOUNTERED                                                                                                   | A8 A RESAR          | .T OF CON        | TANINATION AND REM              |                                         |
| HYDHAULIC-A/B<br>BUSTAINER/YERNIER                           | 90-04-146<br>ACTUATOR ABADIBLY: BERYO VALVE                                                                                                                                                                                                           | FAR<br>27-05314-011                                                                                                    | 470<br>600404       | ž,               | YES INTERSTATE NO               | 60 73.00                                |
| FAILURE MODE-OUT OF TO<br>MITS AND EXHIGITED ERRO<br>MATION. | FAILURE MODE-OUT OF TOLERANCE-DURING STRIEM CHECKOUT GOTH BUBFAINER ACTUATORS FAILED TO MAL MITHIN THE REQUIRED LI<br>Hits and exhigited erratic operation. Failure has due to a being valve spool abjustrent problem and possible contant<br>Hation. | BUSTAINEN ACTUATORS FAILED TO MAL MITHIN THE REQUIRED LI<br>BERNO VALNE BROOL ABJUSTNEDIT PROBLEN AND POSSIBLE CONTANI | FAILED TO           | HAL WITH         | HIN THE REGULAED L              | ~ ~                                     |
| CORRECTIVE ACT: ON- WCAR                                     | CH- WCAR TO INTERSTATE.                                                                                                                                                                                                                               | •                                                                                                                      |                     |                  |                                 |                                         |
| HTDP. ULIC-A/B<br>SUSTAINER/VERNIER                          | RECAUSE<br>AC'UNTOR ABBURLY                                                                                                                                                                                                                           | FAR<br>87-83311-8                                                                                                      | 618<br>600408       | FACTORY          | VER LIGHEL PACIFIC BETTER NO.   | 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 |
| FAILURE MODE-COMTAPING                                       | FILLINE MODE-CONTAPINATION. ACTUATOR PRESIGNEY RESPONSE BELOM SPECIFICA/ION LIMITS DUE TO CONTAMINATION BY HETAL PA<br>HTICLES.                                                                                                                       | LON APCIFICA/ION LI                                                                                                    | 141 TE OLE          | TO CONTAM        | IMIION BY NETAL P               |                                         |
| CORRECTIVE ACTION-CLES                                       | ON-CLEANING PROCEDURES DURING ASSEMBLY INTERSIFIED.                                                                                                                                                                                                   | EMAIPIED.                                                                                                              |                     |                  |                                 |                                         |
| -                                                            |                                                                                                                                                                                                                                                       |                                                                                                                        |                     |                  |                                 |                                         |

GENERAL DYNAMICS CONVAIR BIVIBION

|                                                                                           | DIFFICULTIES REVIEW-HTDRAULIC STSTEM-AIRSCHIE                                                                                                                                               | RAULIC SYSTEM-AIRBOR           | ¥                        |                   |                                                                     |                                       |
|-------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|--------------------------|-------------------|---------------------------------------------------------------------|---------------------------------------|
| 318.0<br>368-373168                                                                       | TESTARPORT NUMBER<br>FAILES COMPOMENT NAME                                                                                                                                                  | DIF DATA BOURCE<br>PART NUMBER | VENTCLE<br>DATE BIF      | 114 017           | WHIGHE BITE PRI WINDOR MANE<br>DATE BIF TIME BIF OTH WINDOR PART NO |                                       |
| STREET STREET                                                                             | 98-04-059<br>BERVO VALVE                                                                                                                                                                    | FAR<br>87-04208-1              | 446<br>600/98            | £                 | TES INSCRETATE                                                      | ***                                   |
| FAILURE HODE-OUT OF SUE<br>ETAL PARTICLES.                                                | FAILUME HODE-OUT OF BPECIFICATION-ACTUATORS PRESIENCY RESPONSE BELOM BPECIFICATION LIMITS BUE TO CONTANIMATION SY H<br>.Tal Particles.                                                      | DINGE DELCH BPECIFICA          | 710% 61887               | <b>5 24</b> 0     | CONTANINATION BY P                                                  |                                       |
| COMMECTIVE ACTION-CLEAN                                                                   | COMPECTIVE ACTION-CLEANING PROCEDURES BURING ASSENDLY INTERSIFIED.                                                                                                                          | #IF160.                        |                          |                   |                                                                     | -                                     |
| HTDAALLIC-A/B<br>Bustainer/Vermier                                                        | 98-04-074<br>ACTUATOR ASSEMBLY                                                                                                                                                              | FAR<br>27-65311-5              | 300<br>300<br>300<br>300 | 5                 | TES LIGHTL PACIFIC                                                  | ***                                   |
| FAILURE MODE-OUT OF SME<br>24 DEGREES, MCT AN ACTUA                                       | FAILURE HODE-OUT OF SPECIFICATION-ACTUATOR MESTRICTED THE V-1 EMBINE NOVEHENT TO 21 DEGMESS SPECIFICATION REQUIRES<br>24 DEGREES. HET AN ACTUATOR FAILURE BUT AM INSTALLATION FAILURE.      | 1-1 DIGINE NOVENEUT 1          | 70 £1 BEE                | 129 <b>94</b> CI  | PICATION REQUIRES                                                   |                                       |
| CORRECTIVE ACTION-ENGIN                                                                   | CORRECTIVE ACTION-ENGINE ANGLAR HOVENENT CHECK ADDED TO FINAL ASSEMBLY INNFECTION PROCEDURE.                                                                                                | HAL ASSEMBLY INCRECT           | TON PROCE                | Ž.                |                                                                     |                                       |
| HTDRAULIC-A/B<br>Sustainer/Vermier                                                        | 90-04-039<br>ACTUATOR ARRESTY, O-RING MEAL                                                                                                                                                  | FAR<br>27-06963-8              | 470                      | <b>E</b>          | TES INTERSTATE<br>NO 2725-1                                         | 2                                     |
| FAILURE MODE-LEAK-EXTER L. AFTER THE ACTUATOR MA                                          | FAILUME MODE-LEAK-EXTERMAL-DURING A HTDMAULICS SYSTEM CHECKOUT THE HYDRAULIC ACTUATOR WAS REPORTED TO SELLEAKING OF<br>L. AFTER THE ACTUATOR WAS REMOYED THE FAILUME COULD NOT BE COPTIMET. | COUT THE HYDRAULIC AC          | Turtor M                 | A REPORTE         | 2 TO SE LEAKINS OF                                                  | · · · · · · · · · · · · · · · · · · · |
| CORRECTIVE ACTION-NOME-PAILURE UNCONTRNED.                                                | FAILURE UNCOFTENED.                                                                                                                                                                         |                                |                          |                   |                                                                     | · · · · · · · · · · · · · · · · · · · |
| HYDRAULIC-A/B<br>Bustainer/Vermier                                                        | AZC-27-118/P1-403-00-42<br>ACCUMULATOR CHARGE LINE                                                                                                                                          | P.164                          | 460                      | 11<br>97.2        | NO 60/C                                                             | 997110                                |
| FAILURE MODE-STRUCTURAL, THE PREUMATIC CLASSING A HIGH TEMPERATURE CONDITION IN THE AMEA. | FAILURE MODE-STRUCTURAL. THE PREUMATIC CHARGING LINE TO THE WERNIER SOLO ACCUMULATOR PAILED AT 97.2 SECONDS DUE TO<br>HIGH TEMPERATURE CONDITION IN THE AREA.                               | . VERNSER BOLO ACCUM           | KATOR PAL                | .E6 A7 97         | . S SECONDS DUE TO                                                  |                                       |
| SYSTEM EFFECT-OPERATION AND DROPPED FROM SILE PRO                                         | BYBIEM EFFECT-OPERATION TOO LOM, DUE TO THE CHARGE LINE FAILURE, A HYDRAULIC PRESSURE BECAY BESAN AT 258.6 SECONDRING DROPPLE FROM 3115 PBIG TO 250 PBIG IN 3.5 SECONDS.                    | LUME, A MTDRAULIC PA           | Coome De                 | EAY <b>BE</b> BAN | AT 256.6 SECONDS                                                    |                                       |
| VEHICLE EFFECT-LOSS OF CONTROL.                                                           | WEMICLE EFFECT-LOSS OF WEMICLE STABILITY. WEANIER EMBINES CONTROL HAS LOST MITH RESULTANT LOSS OF MISSILE ATTITUDE                                                                          | CHTROL INS LOST METH           | REBULTAN                 | P 1001 F          | MISSILE ATTITUDE                                                    |                                       |
| CORRECTIVE ACTION-USE OF                                                                  | COARECTIVE ACTION-USE OF STEEL AND/OR MAPPED LINES USED FOR THE PHEUMATIC CHARSING LINE POR SUBSEQUENT PLIGHTS.                                                                             | A THE PHEUMATIC CHAR           | 9110 F11K                | For suss          | TeuENT PLISMIS.                                                     |                                       |

CONVAIR BIVISION

|                                     | DIFFICULTIES SETTEN                                                                                                                                                          | DIFFICULTIES RETIEM-NYDRAULIC STRIEM-AIRBORNE | <b>#</b>            |                  |            |                                       | ,             |
|-------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|---------------------|------------------|------------|---------------------------------------|---------------|
| 87.57EN<br>846-8787EN               | TEST/REPORT MURES. FAILED COMPOSERY MANE                                                                                                                                     | DIF DATA BOUNCE<br>PART NUMBER                | WENICLE<br>DATE BIF | 01TE<br>71ME 01F | 1 5<br>2 5 | PRI VENDOR NAME<br>OTH VENDOR PART NO |               |
| NTERALLIC-A/B<br>BUSTAINER/VERNIER  | 96-04-038<br>ACTUATOR ASSEMBLY                                                                                                                                               | FAR<br>E7-63314-013                           | 986000              | 678              | ÷ 9        | TES INTERSTATE                        | • 7.31        |
| PAILURE MODE-OUT OF                 | PAILUME MODE-OUT OF TOLERANCE-DUMING PREDUCTOR RESPONSE TESTS THE ACTUATORS EMHISTED LOW GAIN-                                                                               | TESTS THE ACTUATORS ET                        | 2 <b>63</b> 148 C   | i<br>S           |            |                                       |               |
| CORRECTIVE ACTION-W                 | CORRECTIVE ACTION-WAR MENT TO WINDOR TO INTENSIFY INSPECTION PROCEDURES.                                                                                                     | ICTION PROCEDURS.                             |                     |                  |            |                                       |               |
| HTD4AULIC-A/B<br>BUSTATHER/WERMER   | 96-10-045<br>RELIEF VALWE-NYDRAULIC                                                                                                                                          | FAA<br>87-0680-1                              | 436<br>800£11       | E                | 20         | TES PANTER<br>NO                      | *             |
| FAILUME MIDE-FAILUME                | FAILUME MOCFFAILUME DURING OFERATION-BUBJECT WALNE WAS RELIEVING LOW AND CONTTERING.                                                                                         | RELIEVING LOW AND OM!                         | 7CL IN.             |                  |            |                                       |               |
| CORRECTIVE ACTION-NO                | CONNECTIVE ACTION-NOME-PAILUME NOT CONFINNED.                                                                                                                                |                                               |                     | į                |            |                                       |               |
| MTD4ALEC-4.0<br>Busta increventer   | AE-60-0040/P3-40E-00-40<br>TAIN PREABURE LINE                                                                                                                                | PLIGHT                                        | 446<br>400811       | 22.2             | 9 9        | <b>79</b>                             |               |
| PAILURE MODE-LEAK-CI                | FAILURE MODE-LEAR-EXTERNAL. THE BUSTAINER MYDRAMAIC TANS PMESSURIZATION LINE WAS BANNARD AT BOOSTER JETTISCH.                                                                | A PRESENTENTION LINE 1                        |                     | - T              | Ş          | £77180e.                              |               |
| FROM TT. 6 PSIG AT 13               | STREET EFFECT-DEPLETION OF 648 SUPPLY. THE BUSTAINER HYBRAILIC PLUED TAIN PREMINTIC PRESENCE DECREASED TO 87.6 PRINT<br>From 77.6 PRIG AT 138-88 RECORDS.                    | MANLIC PLUID TANK PAGE                        | MTIC PRE            | ¥                | MAN        | B 70 F7.e 7614                        |               |
| WATCLE EFFECT-NOME.                 |                                                                                                                                                                              |                                               |                     |                  |            |                                       | . <del></del> |
| CORRECTIVE ACTION-CL                | CONECTIVE ACTICUM-CLARIFT NETWOOD OF ATTACHNEDIT OF LINES TO PLAL TANK IN AMEA OF POBBLIAL BOODTER ACTITION INTERPLAE<br>RE.                                                 | TO PUEL TAME IN AMEA (                        | FORGIAL             | 1 8008 12        | 2          | INCH INTERPLA                         |               |
| HYDRAUL IC-A/B<br>BUSTAINER/VERNIER | 98-04-046<br>Actuator Assembly, 86A48                                                                                                                                        | FAR<br>87-08810-611                           | 3 8                 | E                | şe         | TES INTERSTATE                        | :             |
| PAILURE MODE-LEAK ET BO             | FAILUME MODE-LEAA ERTERMAL. ACTUATOR WAS LEAKING AT HATING PLANME BETWEEN BERVO AND SERVO CYLINDER ABAGNALT WITH<br>Haten pressage of 3000 pris. O-ging beals were banndeda. | IN PLANTE BETVEEN BED                         | 5 <b>9</b> 8        | W CPLIM          | 3<br>5     | MANAGET WITH A                        |               |
| COMCILM ACT. W-R                    | THE WEAR ISSUES TO WENDOW TO INFROVE BUSALITY CONTROL.                                                                                                                       | 117 CONTROL.                                  |                     |                  |            |                                       |               |
|                                     |                                                                                                                                                                              |                                               |                     |                  | l          |                                       | <b>T</b>      |

SENERAL DYMMICS

#

|                                                                                     | WHICLE BITE PRI WENDOR NAME<br>BATE BIP TIME BIF OTH WENDOR PART NO | YES PANTEK<br>NO 8858                      | OF PAILURE UND                                                                                                                     | VES INTERSTATE ENG-<br>NO R.           | CCAQUT AT 800 P                                                                                                                                                                                                                                                                      | YES INTERSTATE<br>MO                   | 2006 1631. Tre                                                                                                                                                                                                                               | TES PANTEK<br>NO 0968               | he baneds on t                                                                                                                           | NOVE HIS GUALIT                                                                                                     |
|-------------------------------------------------------------------------------------|---------------------------------------------------------------------|--------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|
|                                                                                     | # #<br># 79                                                         | 5 £                                        | 9                                                                                                                                  | <b>₽ 2</b>                             | 3                                                                                                                                                                                                                                                                                    | 5 8                                    | ž                                                                                                                                                                                                                                            | ភ្ ខ                                | 3<br>1                                                                                                                                   |                                                                                                                     |
|                                                                                     | 11 01 T                                                             | £2                                         | D THE C                                                                                                                            | 3                                      | PLES AN                                                                                                                                                                                                                                                                              | E                                      | 1                                                                                                                                                                                                                                            | E                                   | 7                                                                                                                                        | 41 <b>/10</b> 10                                                                                                    |
| 1                                                                                   | VEHICLE<br>DATE BIP                                                 | ## 0.00<br>#0.00#                          |                                                                                                                                    | 80108                                  | WDRAM.IC                                                                                                                                                                                                                                                                             | 800<br>800100                          | 1                                                                                                                                                                                                                                            | 808<br>80161                        | ¥ .                                                                                                                                      | 00 00 00<br>00 00                                                                                                   |
| MANICA<br>VIBION<br>ALLIC ATATEMATINGS                                              | BIF DATA BOUNCE<br>PART MANBER                                      | PAR<br>27-06512-5                          | DON TO THE HYDRALE.                                                                                                                | FAR<br>27-65312-603                    | MEAL DURING SYSTEM MEAL. TTON SURVEILLANCE O                                                                                                                                                                                                                                         | FAR<br>27-6331E-603                    | LAED AROND THE ME                                                                                                                                                                                                                            | 7.At 27-06522-5                     | PLAL OF HTDALALIC                                                                                                                        | ATION. ALSO THE VEH                                                                                                 |
| General Bynamics<br>Convair Division<br>Difficulties bryth-wydain ic bynth-Alberthe | TESTARFORT HUNGER<br>FAILED COMPORNT NAME                           | 96-10-044<br>Sustainer Htbrau.ic Reservoir | FAILUME MOSE-INTERMAL LEAR - INTERMAL GAS LEAR PAST THE PISTON TO THE MYDRAULIC SIBE. PROSABLE CAUSE OF FAILUME WAS CONTANIMATION. | 94-04-037<br>ACTUATOR ASSENSAT, O-RING | FAILUME MOSE-EXTERNAL LEAK, UNIT LEAKED AT PISTON NOS RACK BEAL DUMING SYSTEM MYDRANLIC BLEED AND CHECKOUT AT 500 P. SIG. A PIECE OF PLASTIC TAPE HAS FOLND ON THE SHAFT O-RING SEAL. CORRECTIVE ACTION-WAR ISSUED TO WENDOR TO INTENSIFY IMPRECTION SARVEILLANCE OF THIS COMPOSENT. | MO-04-036<br>ACTUATOR ASSERBAY, O-RING | PAILURE MODE-LEAR EXTERMAL-THE 9-1 EMBINE PITCH ACTUATOR LEAGED AROUND THE MED AND BEAL BURING A RESPONSE TEST. THE ACTUATOR SHARF G-MING MEAL WES SCRATCHED.  CORRECTIVE ACTION- WEAR ISSUED TO WENDOR TO SWITCHER? IMPRECTION BARMELLANGE. | 98-10-643<br>HTDRAULIC TANE, BEAL   | FAILURE MOSE-INTERMAL LEAR - THE PLUID BIDE BIGHT GLABS WAS PULL OF HYDRALLIC OIL. THE O RIMS MEAL WAS DAMMED ON T<br>E INDICATOR BHAFT. | CORECTIVE ACTION-INITIATED ACTION FOR BETTER REAL INSTALLATION. ALBO THE VERDOR WAS HOTIFIED TO IMPROVE HIS GUALIT. |
| 18 JUN 1866                                                                         | STRIEN<br>BIG-STREN                                                 | HTORAULIC-A/B<br>Sustainea/Verhier         | FAILURE MOSE-INTERNAL LES<br>CONTANINATION.<br>CORRECTIVE ACTION-NOME.                                                             | HYDRAULIC-A/B<br>BUSTAINER/VERNIER     | FAILURE HODE-ERTERMAL LE<br>816. A PIECE OF PLASTIC T<br>CORRECTIVE ACTION-WAR ES                                                                                                                                                                                                    | HYDRAUL IC-A/B<br>BUSTAINER/VERNIER    | PAILURE MODE-LEAR EXTERNAL-THE 9-1 DRAINE ACTUATOR SHAFT O-RING SEAL WAS SCRATCHED. CORRECTIVE ACTION-WEAR ISSUED TO WENDOR T                                                                                                                | Hydrach. IC-a/B<br>Bustaingr/Verier | FAILURE MONE-INTERNAL LE<br>ME INDICATOR BNAFT.                                                                                          | CONSECTIVE ACTION-INITIA<br>F.                                                                                      |

115000

CENERAL BYNAHICS CONVAIR BIVISION

.

18 198 1886

|                                                                          | DIFFICATION REVIEW-REPARTS STRICK-AINGURAL                                                                                                                                                                                                                      | MANUEL STRICK-AIMEN                                     |                                         |                                                    |                                     | ,            |
|--------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|-----------------------------------------|----------------------------------------------------|-------------------------------------|--------------|
| 8.08 - 8.08 EN                                                           | TESTARFORM HAMBER<br>PAILED COMPOSENT NAME                                                                                                                                                                                                                      | BIF BATA BOURCE<br>PART HUMBER                          | WHICLE<br>94TE BIP                      | 817E PI<br>71ME BIF O                              | OF 1870 BORNA HIO                   |              |
| HTGRAUL I'-A/B<br>BUSTAINE+/VERNIEP                                      | A2M-E7-368/FC-4CO-03-46                                                                                                                                                                                                                                         | COMPOSE TE-FACTORY                                      | 901 068                                 | PACTORY VE                                         | 76.                                 | :            |
| FAILURE MODE-ERRATIC OF<br>15 COULD NOT BE DUPLICAT<br>HEDRAULIC SYSTEM. | FAILURE MODE-ERRATIC OPERATION-VARIATIONS WITH AMPLITUDE OF UP TO 8.5 WOLTS OBSERVED ON VERMIER NO. 1 PITCH/ROLL A)<br>18 could not be duplicated during post-composite testing. This compition hay have been caused by air trapped in the<br>Hydraulic system. | OF UP TO 8.8 WOLTS CENTRIES CONTINUES CONDITION MAY MAY | ACANTO ON<br>ACANTO ON                  | CBSERVED CH VERNICA NO.<br>MAVE BEEN CAUSED BY AIR | I PITCH/ROLL AK<br>I TRAPPED IN THE |              |
| STSTEN EFFECT-ERRATIC C                                                  | HATIC OPERATION.                                                                                                                                                                                                                                                |                                                         |                                         |                                                    |                                     |              |
| WHICLE EFFECT-COMOSII                                                    | CONTREDELATED. WENIER ENGINE NO. 1 MAD WE PECTED VARIATIONS IN PITOR AND NOLL.                                                                                                                                                                                  | UNE OPECITO VARIATION                                   | A IN PITC                               | N AND ROLL                                         |                                     |              |
| CORRECTIVE ACTION-LARING REGULARITY.                                     | CORRECTIVE ACTION-LAKNOMA, PORT-COMPOSITE TESTS NEME HADE TO FIND THE BOUNCE OF THE PROBLEM, COALS NOT REPEAT THE I                                                                                                                                             | TO FIND THE BOUNCE OF                                   | 7 A                                     | LEN. COM.                                          | NOT REPEAT THE 1                    |              |
| HTDRAUE, IC-A/B<br>BUSTAINER/VERNIER                                     | 86-10-040<br>HTDRAULIC TAME                                                                                                                                                                                                                                     | FAR<br>E7-00312-5                                       | \$16<br>\$01010                         | 87.C 12                                            | TED PANTEX<br>MO 0000               | 97.          |
| FAILURE MOE-LEAK. INTI                                                   | FAILUME MOSC-LEAR. INTERNAL GAS PRE-CHARGE LEAKAGE TO THE HYDRAULIC SIDE ACNOSS THE PISTORS.                                                                                                                                                                    | HTDRAILE SIDE ACROS                                     | 74E P187                                | á                                                  |                                     |              |
| CORRECTIVE ACTION-NOME                                                   | CORRECTIVE ACTION-NOME-LEAKAGE NO! CONFIRMED.                                                                                                                                                                                                                   |                                                         |                                         |                                                    |                                     |              |
| HTDRAULIC-A/B<br>BUSTAINER/VENIER                                        | A2H-27-386/FC-4CO-03-38<br>ACTUATOR ASSEMBLY                                                                                                                                                                                                                    | COMPOSE VE-FACTORY<br>E7-83811-9                        | 361987                                  | PACTORY VE                                         | NO FIONEL PACIFIC                   |              |
| FAILURE MODE-ERRATIC OPERATION.<br>BY AIR IN THE HYDRAULIC SYSTEM        | FEATION. ERRATIC HONDIENTS OF VERNIER ND 2 TAM JUST PRIOR TO VERHIER SOLO PHANE NERE CAUMED<br>STREEN                                                                                                                                                           | ICA NO E TAM JUST PRIC                                  | 5 K                                     | 100 m                                              | LANE WENE CAUPED                    |              |
| STATEM EFFECT-ERRATIC                                                    | HAVIC OPERATION. AIR IN THE HYDRANAIC SYSTEM CAUSED ERRATIC NOVEMENT OF                                                                                                                                                                                         | TEN CAUNCE ENRATIC NO                                   | CICIN OF                                | THE DISINE ACTUATOR.                               | ACTUATOR.                           |              |
| WENICLE EFFECT-COMPOSITE RE-SCHEDULED.                                   | T RE-KADULD.                                                                                                                                                                                                                                                    |                                                         |                                         |                                                    |                                     |              |
| CORRECTIVE ACTION-FILL                                                   | COARECTIVE ACTION-FILL AND BLEED OPERATION ON HYDRAILIC BYSTEN INS PERFORMED. A PARTIM.                                                                                                                                                                         | rates has performed.                                    | PARTIAL                                 | 31100400                                           | CONFOSITE RETEST INS PERFOR         |              |
| HYDRAULIC-A/B<br>BUSTAINER/VERNIER                                       | AZN-27-369/FC-4CO-02-38                                                                                                                                                                                                                                         | CONFOST TE-PACTORY                                      | 310                                     | <u> </u>                                           | 5 Q                                 | <del>)</del> |
| FAILURE HODE-ERRATIC OF<br>THE HYD STRIEM AND A PY                       | FAILUME MODE-ERRATIC OPERATION. SPURIOUS EMBINE MONDIENTS AND GLITCMES MENE OBSERNED ON TEST BATA. CAUMED ST AIR IN<br>THE MTD STRIEM AND A POSSIBLE LUOSE BUSTAINER EMBINE SINDAL BLOCKS.                                                                      | AND BLITCHES WENT ODING BLICHES                         | 8 9 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 | <b>H87 84</b> 7A.                                  | CAUSED BY AIR IN                    |              |

WAILLE EFFECT-COMPOSITE RESCHEDULES. STRIEM EFFECT-ERRAFIC OPERATION.

GENERAL DYNAMICS CONVAIR BIVISION

CONVAIR

11 104 1100

|                                               |                                                                   | ******                                                        | •                                  |                                                                                                                               |                                  |                      |                         | ••7105                                          |                                                                                                                                                                                                                                      |                                  |                                                                                                                                                                                    | **********                 | •<br>•<br>•<br>•<br>•                  |                                                                                                                                                                                                                                                                                                   | <del></del>                                                                                                 | <b></b>                            |
|-----------------------------------------------|-------------------------------------------------------------------|---------------------------------------------------------------|------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|----------------------------------|----------------------|-------------------------|-------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|------------------------------------|
|                                               | WENTELE BITE PRI WENDOR NAME DATE BIP TIME BIP OTH WENDOR PART NO |                                                               |                                    | PERCENT ABOVE                                                                                                                 |                                  |                      |                         | TES INTERSTATE                                  | ES MERE COSERV<br>BYSTEN.                                                                                                                                                                                                            |                                  | POSITIONS. POS                                                                                                                                                                     |                            | VES VICKERS<br>NO AA-60403-L-E         | CRACK MAS CAU                                                                                                                                                                                                                                                                                     | 17166.                                                                                                      | YES AEROGUIP<br>NO 6750111-0235    |
|                                               | M O                                                               | 1                                                             | <u>۽</u> 5                         | =                                                                                                                             |                                  |                      |                         | ë g                                             | WOLTAG<br>LAME IC                                                                                                                                                                                                                    |                                  | 245 E M.                                                                                                                                                                           |                            | 2 9                                    | - 800V.                                                                                                                                                                                                                                                                                           | IES NOT                                                                                                     | ž š                                |
|                                               | 11 0 17 E                                                         |                                                               | : ;                                | A MARKA                                                                                                                       |                                  |                      |                         |                                                 | EDBACK<br>ME n 10                                                                                                                                                                                                                    |                                  | # T#E 1                                                                                                                                                                            |                            | 316                                    | 5 8                                                                                                                                                                                                                                                                                               | 10 TH                                                                                                       |                                    |
| Ä                                             | WENICLE<br>DATE BIP                                               | IAL BLOCK.                                                    | 11000                              | itseant ont                                                                                                                   |                                  |                      |                         | <b>5006</b>                                     | MADUCER FE                                                                                                                                                                                                                           |                                  | MIATION 3                                                                                                                                                                          | i                          | 900730                                 | WER BOLD !                                                                                                                                                                                                                                                                                        | MIZATION.                                                                                                   | 94,006                             |
| AULIC SYSTEM-AIRBOT                           | BIF DATA BOURCE<br>PART NUMBER                                    | AND RETIEMTENED THE SINGAL BLOCK.                             | 7.1ed                              | HTDRAULIC RETURN PO                                                                                                           |                                  |                      |                         | COSTOS   TE-FACTORY 27-65812                    | PITCH, AND MOLL TEA                                                                                                                                                                                                                  |                                  | AUSED UNEXPECTED VI                                                                                                                                                                |                            | FAR<br>87-00500-1                      | CA PRON THE HEAD CO<br>PAILURE OCCURNED I                                                                                                                                                                                                                                                         | PRECLUDE OVERPRESS                                                                                          | FAR<br>27-06571-20                 |
| DIFFICULTIES REVIEW-HYDRAULIC SYSTEM-AIRSCHIM | TEST/REPORT MUSER<br>FAILED COMPONENT MANE                        | CORRECTIVE ACTION-LAKINGAM, PERFORMED A FILL AND BLEED AND RE | AIC-E7-084/P3-403-00-14            | FAILURE MODE-OUT OF EXPECTED TEST VALUE, SUSTAINER/VERN; SE MYDRAULIC RETURN PRESSURE GREATER THAN 25 PERCENT ABOVE<br>Denal: | 8 II &                           |                      |                         | AZH-E7-338/FC-4CO-01-330<br>FEEDBACK TRAMSOUCER | FAILURE MODE-ERRATIC OPERATION-VARIATIONS IN VERNIER NO. 1 PITCH, AND BOLL TRANSDUCER PUEDBACK VOLTAGES MEME GESERY<br>ED. THIS CONDITION DID NOT OCCUR ON POST-COMPOSITE TESTING AND WAS ATTRIBUTED TO AIR IN THE MIDIAULIC SYSTEM. | RATION.                          | VEMICLE EFFECT-COMPOSITE DELAYED. AIR IN HYDRAULIC SYSTEM CAUSED UNEXPECTED VARIATIONS IN THE ENGINE POSITIONS. POS<br>T CUMPOSITE TESTS REGULRED TO SHOW PROPER SYSTEM OPERATION. |                            | 88-08-034<br>PLAP: GUSTAINER HYDRAULIC | FAILURE MOE-STRUCTURAL-PUMP HOUSING CONTAINED A 8 INCH CRACK PROM THE HEAD COWER DOAM THE PUMP BOOY. CRACK WAS CAU<br>MED DY OVERHESSURIZING THE LOW PRESAURE BIDE OF THE BYBIEM. FAILURE OCCURNED DURING BETUP AND CHECKOUT OF THE WENSE<br>LE HYDRAULIC SYSTEM, PRECEDED BY THO STATIC FIRINGS. | CORRECTIVE ACTION-OIL EVALUATION PROCEDURE HAS RODIFIED TO PRECLUDE OVERPRESSURIZATION. ALL SITES HOTIFIED. | 80-10-031<br>HTD4ALIC PLEK MOSE    |
| 9941 WG7 81                                   | 87816M<br>846-87876M                                              | CORRECTIVE ACTION-UNKNOWN                                     | WYDRAULIC-A/B<br>BUSTAIMER/VERNIER | FAILURE MOS-OUT OF EXPECT                                                                                                     | SYSTEM EFFECT-MERATION TOO HIGH. | VEHICLE EFFECT-NOME. | CORRECTIVE ACTION-NOME. | HYDRAULIC-A/B<br>Bustainer/Vernier              | FAILURE MODE-ERRATIC OPER.<br>ED. 7418 CONDITION DID NOT                                                                                                                                                                             | SYSTEM EFFECT-ERRATIC OPERATION. | WEMICLE EFFECT-COMPOSITE  <br>T COMPOSITE TESTS REQUIRED                                                                                                                           | CORRECTIVE ACTION-UNKNOWN. | MYDRAUL I C-A/B<br>Bustainer/Vernier   | FAILURE MODE-STRUCTURAL-PUMP MOUSING CONTAINED A 8<br>MED DT OVERPRESSURIZING THE LOW PRESSURE BIDE OF THE<br>LE MYDRAULIC STRIEM, PRECEDED BY TWO BTATIC FIRINGS.                                                                                                                                | CORRECTIVE ACTION-OIL EVAI                                                                                  | MTDRAULIC-A/B<br>BUSTAINER/VERNIER |

PAILURE MOCE-EXTERNAL LEAR. LEARING AT EITHER ONE OR BOTH END PITTINGS.

SCHERAL BYNAMICS CONVAIR BIVIBION

13 144 1986

| A WEY MANUFACTURING PROCEDURE.  A WEY MANUFACTURING PROCEDURE.  A WEY MANUFACTURING PROCEDURE.  A WEY MANUFACTURING PROCEDURE.  A WEY MANUFACTURING PROCEDURE.  PALLUER WOOL-OUT OF PRECIPICATION ON TOLERANCE. RISK OFF DISCOMECT SEPARATION WAS BEEATER THAN ALCOMAGE. THIS AND MALIOMOGET SEPARATION WAS BEEATER THAN ALCOMAGE. THIS AND MALIOMOGET SEPARATION WAS BEEATER THAN ALCOMAGE. THIS AND MALIOMOGET SEPARATION WAS DECIDED BY STATEMAN OFF. SAME PROGRAM PROCEDURE FROM THE WOOLLEST CONTAINED WE STATEMAN OFF. SAME PROGRAM PROCEDURE FROM THE MALIAME THIS AND OFF. SAME PROGRAM OFF. SAME PROCEDURE CONTRICT THE MALIAME THIS AND OFF. SAME PROCEDURE CONTRICT THE MALIAME THIS AND OFF. SAME PROCEDURE CONTRICT THE MALIAME THIS AND OFF. SAME PROCEDURE CONTRICT THE MALIAME THIS AND OFF. SAME PROCEDURE CONTRICT THE MALIAME THIS AND OFF. SAME PROCEDURE CONTRICT THE MALIAME THIS AND OFF. SAME PROCEDURE CONTRICT THE MALIAME THIS AND OFF. SAME PROCEDURE CONTRICT THE MALIAME THIS AND OFF. SAME PROCEDURE CONTRICT THE MALIAME THAN OFF. SAME PROCEDURE AND OFF. SAME PROCEDURE AND OFF. SAME PROCEDURE AND THE DESIGN THAN THE DESIGN THAN THE DESIGN THAN THE DESIGN THAN THE DESIGN THAN THE DESIGN THAN THE DESIGN THAN THE DESIGN THAN THE DESIGN THAN THE DESIGN THAN THE DESIGN THAN THE DESIGN THAN THE DESIGN THAN THE DESIGN THAN THE DESIGN THAN THE DESIGN THAN THE DESIGN THAN THE DESIGN THAN THE DESIGN THAN THE DESIGN THAN THE DESIGN THAN THE DESIGN THAN THE DESIGN THAN THE DESIGN THAN THE DESIGN THAN THE DESIGN THAN THE DESIGN THAN THE DESIGN THAN THE DESIGN THAN THE DESIGN THAN THE DESIGN THAN THE DESIGN THAN THE DESIGN THAN THE DESIGN THAN THE DESIGN THAN THE DESIGN THAN THE DESIGN THAN THE DESIGN THAN THE DESIGN THAN THE DESIGN THAN THE DESIGN THAN THE DESIGN THAN THE DESIGN THAN THE DESIGN THAN THE DESIGN THAN THE DESIGN THAN THE DESIGN THAN THE DESIGN THAN THE DESIGN THAN THE DESIGN THAN THE DESIGN THAN THE DESIGN THAN THE DESIGN THAN THE DESIGN THAN THE DESIGN THAN THE DESIGN THAN THE DESIGN THAN THE DESIGN THAN THE DESIGN THAN THE DESI |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 110 GTR YES INTERSTATE EM-<br>174-1 500700 NO R.<br>E770-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 110 ETR YES INTERSTATE EM-<br>174-1 960700 NO R.<br>E770-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 110 CTR YES INTERSTATE EM-<br>D0774-1 900700 NO A.<br>R770-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 110 ETR YES INTERSTATE ENG. NO. N. B. E770-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

, ,

GENERAL BYNAMICS CONVAIR DIVISION

\*\*\*\*\* No. 81

|                                               | م                                                                 | ******                                 |                                                                                                                                 |                                                                                                                                               | :                                                                  |                                                                                                                                                                                                                                                | 3                                   |                                                                                                                                                                                                                                                                                                    | :                                                                  |                                                                                                                                                                                                                                                                             |                                                                                   |
|-----------------------------------------------|-------------------------------------------------------------------|----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
|                                               | WENICLE BITE PRI VENDOR NAME DATE DIP TIME DIP OTH VENDOR PART NO | TES INTERSTATE ENG-<br>NO R.           | ING IN A PEEDBACK TR                                                                                                            | CINCUIT SIGNALS ON                                                                                                                            | YES INTERSTATE ENG-<br>NO R.                                       | ISE TESTS MADE ON AC                                                                                                                                                                                                                           | YES INTERSTATE<br>NO                | A VERNIER EMBINE F                                                                                                                                                                                                                                                                                 | YES 46/C                                                           | ACTUATOR MOUBING W                                                                                                                                                                                                                                                          | BLT BETWEREN TO 18                                                                |
|                                               | VEHICLE SITE                                                      | 66 A3                                  | MEWERSED WIRI                                                                                                                   | EDBACK PHABING                                                                                                                                | 60 VTR<br>960618                                                   | Lis of the Pas                                                                                                                                                                                                                                 | 40 ETR<br>50610                     | M BURING TEST. MALVE.                                                                                                                                                                                                                                                                              | 74 GTB<br>860-10                                                   | <b>MEMO</b> LY TO THE                                                                                                                                                                                                                                                       | Hara arina                                                                        |
| TATEN-AIRBORNE                                | DIF DATA BOURCE VEN                                               | FAR 603-608 860                        | HE WALLED BUE TO                                                                                                                | ALL ACTUATOR PE                                                                                                                               |                                                                    | LING.<br>RECORD THE RESU                                                                                                                                                                                                                       |                                     | OF SPECIFICATION SUSTAINER PLON                                                                                                                                                                                                                                                                    |                                                                    | OUCER WINDING A                                                                                                                                                                                                                                                             | TER TORBUING.                                                                     |
| HEN-HORAULIC BY                               |                                                                   | FAR<br>47-655                          | MINE COULD NOT I                                                                                                                | ECTED TO RECORD                                                                                                                               | FAR<br>CEA MIRI 27-6531                                            | HAD REVERSED VIII                                                                                                                                                                                                                              | FAR<br>E7-05314-005                 | EBFORCE WAS OUT A 1N PLACE OF A CHECK FOR PROPE                                                                                                                                                                                                                                                    | FAR<br>K TRANSO 7-84501                                            | ECURES THE TRANS<br>DBACK TRANSDUKEN<br>THE LOS TOSAITES                                                                                                                                                                                                                    | THE BETBCREW AF                                                                   |
| DIFFICULTIES REVIEW-HUDRAULIC STREEM-AIRBORNE | TEST/REPORT NUMBER<br>FAILED COMPONENT NAME                       | 80-04-018<br>ACTUATOR ASSEMBLY, MIRING | FAILURE MOTE-FAIL TO OPERATE AT PRESCRIBED TIME. EMBINE COULD NOT BE MALLED BUE TO REVERBED WIRING IN A PEEDBACK TR<br>Maducer. | COMECTIVE ACTION-HISSILE CHECK OUT PROCEDURES COMECTED TO RECORD ALL ACTUATOR PEEDSACK PASSINS CIRCUIT SIGNALS ON<br>Performance check sheet. | 98-04-015<br>ACTUATOR ASSEMBLY, TRAMBOUCER WIRE ET-85814-809<br>MG | FAILURE HODE-OUT OF TOLERANCE. FEEDBACK TRANSDUCER MAD NEWERAED WIRING.<br>FOR RECTIVE ACTION-PEAFORMANCE CHECK SHEET INSTITATED TO PERMANENTLY RECORD THE RESULTS OF THE PHASE TESTS MADE ON AC<br>UNTORS IN THE FACTORY AFTER NAMERACTURING. | 98-04-014<br>ACTUATOR ASSENCE       | FAILURE MOE-OUT OF TOLERANCE, BUSTAINER ACTUATOR RESPONCE WAS OUT OF SPECIFICATION BURING TEST, A MERNIER EMSING UALVE WAS IMADVERYENTLY INSTALLED ON THE ACTUATOR IN PLACE OF A BUSTAINER PLON VALNE.  CORRECTIVE ACTION-INSPECTION SALEDURE TO INCLUSE A CHECK FOR PROPER SERVO WALNE OPERATION. | 98-04-009<br>Actuator Absenti, Peedback Transo 7-84501-639<br>UCER | FAILURE HODE-ERRATIC OPERATION. THE BETREATEN THAT BECURES THE TRANSDUCER WINDING ABBENDLY TO THE ACTUATON HOUSING W<br>S FCUND TO BE LUCCHE! PERHITTING MOVEMENT OF THE PEEDBACK TRANSDUCER.<br>CORRECTIVE ACTION-PRODUCTION PROCEDURES CHANGED TO INCLINE TOWNS TAXABLES. | INCH POUNDS AND APPLYING SLYPTOL SEIZING COMPOUND TO THE BETSCREW APPER TORGUING. |
|                                               | 3131EM<br>346-3731E1                                              | NYDRAULIC-A/B<br>BUSTAINER/VERNIER     | FAILURE MOTE-FAIL TO OP                                                                                                         | COMPECTIVE ACTION-NISSIL<br>PERFORMANCE CHECK SMEET.                                                                                          | HTDRAULIC-A/B<br>BUSTAINGR/VEPMIER                                 | FAILURE MODE-OUT OF TOLERANCE, FEEDBACK TR<br>FORZECTIVE ACTION-PERFORMANCE CHECK SHEET<br>TUATORS IN THE FACTORY AFTER NAME ACTURING.                                                                                                         | MYDRAUL IC-A/B<br>Bustainer/Verrier | FAILURE MOE-OUT OF TOLL<br>LOW VALVE MAS IMADVERTEN<br>CORRECTIVE ACTION-INSPEC                                                                                                                                                                                                                    | HTDRAULIC-A/B<br>Bustainer/Vernier                                 | FAILURE HODE-ERRATIC OFF<br>AB FOUND TO BE LOOSE, PER<br>CORRECTIVE ACTION-PRODUC                                                                                                                                                                                           | THEM POUNDS AND APPLYING                                                          |

GENERAL BYMANICS CONVAIN BIVISION

b

|   | 1                                                   | DISIA IS WIVANOS                                                                                                                                                                                                          |                                            |                                           |          |            |                                 |       |     |
|---|-----------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|-------------------------------------------|----------|------------|---------------------------------|-------|-----|
|   |                                                     | DIFFICULTIES REVIEW-HYDRAULIC STRIEM-AIRBORNE                                                                                                                                                                             | AULIC STSTEM-AIRBOR                        | *                                         |          |            |                                 |       |     |
|   | 8787EN<br>808-8787EN                                | TEST/REPOST NUMBER<br>FAILED CONFORENT NAME                                                                                                                                                                               | BIF BATA BOUNCE<br>PART NUMBER             | VENTCLE BITE PRI<br>DATE BIP TINE BIP OTH | 11 DI 1  | 9 N I      | WENDOR NAME<br>WENDOR PART NO   | A T B |     |
|   | HTDRALLIC-A/B<br>BUBTAINCE/YCRNICR                  | B8-10-021<br>HYDRAULIC PLER HOSE, BEAL                                                                                                                                                                                    | FAR<br>87-06873-89                         | 10404                                     |          | ÷ 8        | YES AEROGUIP<br>NO 675633L-8235 | 8     | :   |
|   | FAILURE MOE-CRIERMAL LA                             | FAILUME MUCE-EXTERMAL LEAR - LEARS AT THE SMUGED FITTINGS, CRACRS IN THE FITTINGS AND LEARS IN THE TEFLON LINER.                                                                                                          | CRACRD IN THE PITTE                        | J1 977 598                                | AA 58 7  | Ä          | 710H LINE                       | ż     |     |
|   | CORRECTIVE ACTION-A BURNE A AGONE DISCREPENCIES. AL | CORECTING ACTION-A BURNET MADE ON ALL VENDOSS HOSES AT OFFSITE BASES AS WELL AS IN STORES AND NAMIFACTURING FOR TH<br>E ABOVE DISCREPENCIES, ALL DEFECTIVE MOSES FOUND ARE TO BE RETURNED TO THE VENDORS FOR REPLACEMENT. | SITE BABES AS MELL.<br>ETURNED TO THE VEDE | AS 18 STOR                                | ES AID P | A PAINT A  | CTURING P                       | ž .   |     |
|   | HYDRAULIC-A/B<br>BUSTAINER/VERNIER                  | AZH-E7-EE5/FC-4CO-01-18<br>FLOM LINITER                                                                                                                                                                                   | COMPOST TE-PACTORY<br>E7-04E07-1           | 120                                       |          | 20         | TES COM 18<br>NO 3140           |       | •   |
|   | FAILURE HODE-FAIL DURING OF                         | FAILUNE HODE-FAIL DUAING OPERATION. THE BUSTAINES EDISINE INDICATED ONERSHOOF WHEN ACTIVATED IN TAM. THE SUSTAINES IN FLOW LIMITES WAS REPLACED.                                                                          | DICATED ONCAMOOT M                         | ADI ACTIVA                                | 5<br>=   | į          | ME 848 TA 1                     | 5     |     |
|   | BYSTEM EFFECT-NOME.                                 |                                                                                                                                                                                                                           |                                            |                                           |          |            |                                 |       |     |
|   | VEHICLE EFFECT-COMPOSITY                            | WENICLE EFFECT-COMPOSITE RESCHEDLED. MENUN OF COMPOSITE MENINED.                                                                                                                                                          | eulaco.                                    |                                           |          |            |                                 |       |     |
|   | CORRECTIVE ACTION-PLOW LIMITER REPLACED.            | LIMITER REPLACED.                                                                                                                                                                                                         |                                            |                                           |          |            |                                 |       |     |
|   | HYDRAULIC-A/B<br>BUSTAINGR/VERNIER                  | AZN-27-209/FC-400-01-11<br>ACTUATOR ASSEMBLY                                                                                                                                                                              | COSTOS   TE-PACTORY<br>E7-85514            | 11.<br>9009                               | PACTORY  | 20         | VES JESTRASTATE<br>HO           |       | 1   |
|   | FAILURE MODE-OUT OF TOLI                            | FAILUME MODE-OUT OF TOLERANCE. THE BUSTAINES ENSINE INDICATED OVERBYOOF WHEN ACTIVATED IN TAM-                                                                                                                            | TO CHEADOOT MADE A                         | CT1 W 129 1                               | # 7AE.   |            |                                 |       |     |
|   | BTOTEN EFFECT-NOE.                                  |                                                                                                                                                                                                                           |                                            |                                           |          |            |                                 |       |     |
|   | WENTELE EFFECT-COMPOSITE                            | WENICLE EFFECT-COMPOSITE RESCHEDULED. A RERUR OF COMPOSITE WAS REQUIRED TO SHOW SATISFACTORY OPERATION.                                                                                                                   | INS REQUIRED TO BUT                        | M MITTER                                  | 5        | BA 7 10    | i                               |       |     |
|   | CORRECTIVE ACTION-ACTUATOR IR/D AID REPLACED.       | TOR IR/O AID REPLACED.                                                                                                                                                                                                    |                                            |                                           |          |            |                                 |       |     |
|   | MTDRAUL I C-A/B<br>BUBTA I NE E/VENNI ER            | M87814-401-01-80/14-401-01-80<br>ACTUATOR BMAFT, O-RIM                                                                                                                                                                    | CAPTINE                                    | <b>500100</b>                             | 1        | <b>2</b> 8 | TES CLEDICO                     |       | 201 |
| 1 | FAILURE MODE-LEAR EXTERI                            | FAILUME "COE-LEAK EXTERNAL. PRICK TO TEST THEME WAS A SMALL ANCHNIT OF SEEPASE AT THE VERNIER ACTUATOR SMAFT O-RINS.                                                                                                      | ANDIANT OF BEEPARE                         | AT THE VES                                | MICA ACI | 2          |                                 | #     |     |
|   | SYSTEM EFFECT-MOME.                                 |                                                                                                                                                                                                                           |                                            |                                           |          |            |                                 |       |     |
|   | WAICLE EFFECT-NOME.                                 |                                                                                                                                                                                                                           |                                            |                                           |          |            |                                 |       |     |

CORRECTIVE ACTION-REPAIR PRIOR TO NEXT TEST.

GENERAL BYNAMICS CONVAIR DIVISION

DIFFICULTIES REVIEW-HTDRAULIC STRTEM-AIRBORNE

| 8787EH<br>808-8787EH                                                                 | TESTARFORT MUSER FAILED CONFORMT MANE                                                                                                                                                                                                                                                                                   | DIF DATA BOURCE<br>PART NUMBER                               | VEHICLE<br>DATE DIP | 017E                | MATE DIF TIME DIF CTM VENDOR RAJE | A T                                    |                                         |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|---------------------|---------------------|-----------------------------------|----------------------------------------|-----------------------------------------|
| MYDRAULIC-A/B<br>Bubtainer/Vernier                                                   | F14413/F1-201-00-10<br>R13COF D13COMECT                                                                                                                                                                                                                                                                                 | 72                                                           | 108                 | 11/ETA<br>-6000     | TES PEACOCK                       |                                        |                                         |
| FAILURE MODE-LEAK-EXTER                                                              | FAILURE MODE-LEAR-EXTERNAL AT BUAD & DISCOMMECT PANEL.                                                                                                                                                                                                                                                                  |                                                              |                     |                     |                                   |                                        |                                         |
| SYSTEM EFFECT-NONE.                                                                  |                                                                                                                                                                                                                                                                                                                         |                                                              |                     |                     |                                   |                                        |                                         |
| VEHICLE EFFECT-COUNTDON                                                              | WEMICLE EFFECT-COUNTDOM DELAYED. 15 MIN MOLD.                                                                                                                                                                                                                                                                           |                                                              |                     |                     |                                   |                                        |                                         |
| CORRECTIVE ACTION-FITTING TIGHTENED.                                                 | ING TIGHTENED.                                                                                                                                                                                                                                                                                                          |                                                              |                     |                     |                                   | <u></u>                                |                                         |
| mtdrau. I c – a / 6<br>Bustainer / Vernier                                           | 96-10-016<br>UNION                                                                                                                                                                                                                                                                                                      | FAR<br>H921908-60                                            | 901100              |                     | TES PARKER<br>NO MRE18GE          | <u> </u>                               | • • • • • • • • • • • • • • • • • • • • |
| FAILURE MOE-STRUCTRUAL-FAILURE OCCURRED<br>CE THE FRACTURE FOLLONED THE CREST OF ONE | FAILURE MORE-STRUCTRUAL-FAILURE OCCURRED UNDS THE SYSTEM PMESSURE MAS RAISED TO 3560 PSI. THE BREAK WAS UNDERAL SIN<br>Is the fracture followed the crest of one of the Thmeads.                                                                                                                                        | CSSUME WAS RAISED TO                                         | 3800 P61            | ž.                  | AL MR WHOLM                       | ************************************** |                                         |
| CORRECTIVE ACTION-THE TEST SITES ID PRESSURE FITTING IS MANDATORY.                   | CORRECTIVE ACTION-THE TEST SITES AND FACTORY MENE INFORMED THAT CONFORMANCE TO PROCEDURES DETAILING ASSEDELY OF FLU<br>D PRESSURE FITTING IS MANDATORY.                                                                                                                                                                 | THAT CONFORMANCE TO                                          | PROCEDURE           | • DETA:LI           | NG ASSEMELY O                     | 3                                      |                                         |
| htdrau IC-a/8<br>Bustainer/Yernier                                                   | ZN-7-657/FC-3CO-01-07<br>ACTUATOR                                                                                                                                                                                                                                                                                       | CO4F0617E-FACTORY<br>87-65314                                | 7<br>\$61208        | PACTORY             | VES CL 3MCO<br>NO                 | •                                      | 001400                                  |
| FAILURE MODE-ERRATIC OF<br>E UMINOMI.                                                | FAILURE MOE-ERRATIC OPERATION-SUSTAINER PITCH ACTUATOR PEEDBACK GUTPUT DATA INDICANTO EXTREME IRREGULARITIES. CAUS<br>: Unknomi.                                                                                                                                                                                        | DBACK CUTPUT BATA II                                         | DICATED E           | KTRENE 14           | REGULARITIES.                     | <b>5</b>                               |                                         |
| STATEM EFFECT-ENRATIC OPERATION.                                                     | PCRATION.                                                                                                                                                                                                                                                                                                               |                                                              |                     |                     |                                   |                                        |                                         |
| VEHICLE EFFECT-COMPOSIT                                                              | WEMICLE EFFECT-COMPOSITE RESCHEDULED-SATISFACTORY COMPOSITE RETEST HAS PERFORMES.                                                                                                                                                                                                                                       | . NETEST WAS PERFORM                                         | ś                   |                     |                                   |                                        |                                         |
| CORRECTIVE ACTION-LAKHOLAN                                                           |                                                                                                                                                                                                                                                                                                                         |                                                              |                     |                     |                                   |                                        |                                         |
| Hydraulic-a/b<br>Bubtainer/Yernier                                                   | FTA4311/F1-E01-00-B<br>HTDRAULIC PRESSURE BUITCH                                                                                                                                                                                                                                                                        | FRF<br>BMI TCH3Q                                             | 200                 | =                   | 760 SPRAGUE<br>NO 78379-8         | <u> </u>                               | 174                                     |
| PAILURE HCDE-OUT OF TOL.<br>E RUM, EVEN THOUGH THE S<br>ET TO ACTUATE AT 2400 79     | PAILURE MGE-OUT OF TOLEAAMCE. THE BUSTAINER INTERNAL HYDRAULIC PRESSURE BUTTCH ACTUATED BEVERAL TINES DURING EMSIN<br>E RUM. EVEN THOUGH THE SUSTAINER HYDRAULIC SYSTEM MAS NOT FUNCTIONIN'S DUE TO THE SAG NOT OPERATING. THE BUITCH MAS B<br>ET TO ACTUATE AT 2400 7916 AND THE GROUND PRESSURE CAUSED IT TO ACTUATE. | ULIC PRESSURE SATTCI<br>MCTIONINS DUE 10 TH<br>' TO ACTUATE. | ACTUATED            | BEVERAL<br>OPERATIN | TIMES DURING                      | # °                                    |                                         |
| STEM EFFECT-INFACPER                                                                 | STSTEM EFFECT-IMPROPER DISCRETE SISMALS. THE SUSTAINER INVALIB INDICATIONS OF SYSTEM OPERATION WAS INDICATED.                                                                                                                                                                                                           | LIB INDICATIONS OF                                           | 741CH OPE           | 14110st W           | & IMDICATED.                      |                                        |                                         |
| WAICLE LFFECT-NORE.                                                                  |                                                                                                                                                                                                                                                                                                                         |                                                              |                     |                     |                                   |                                        |                                         |

GENERAL BYNAMIC.

11 100 100

|   |                                                                                         | DIPPICULITES REVIEW-HYDRAULIC SYSTEM-AIRBORNE                                                                                                                                                                                                                                                                                                                                                                                                                                 | DRAULIC STRIEM-AIRBON                                                                         | #                                              |                                       |                                         |                                                                                                                                           | f     |
|---|-----------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|------------------------------------------------|---------------------------------------|-----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|-------|
|   | 87876W<br>8-81816W                                                                      | TESTAEPOST NUMBER<br>FALLED COMPOSENT MANE                                                                                                                                                                                                                                                                                                                                                                                                                                    | BIF DATA BOURCE<br>PART NUMBER                                                                | VENICLE                                        | 114E BIF OTH                          |                                         | VENDOR MANE<br>VENDOR PANT NO                                                                                                             |       |
|   | HTDRALL IC-A/B<br>BUBTAINGR/VERNIER                                                     | ZH-7-438/FC-ECO-01A-13<br>ACTUATOR ASSEMBLY, SEAL                                                                                                                                                                                                                                                                                                                                                                                                                             | COMPOSITE FACTORY                                                                             | 910000                                         |                                       | 46                                      | VES CLENCO                                                                                                                                | ***   |
|   | FAILURE MODE-LEAK EXTERN                                                                | AR EKTERMAL. VERNIER NO. 8 ACTUATOR URB GBUEAVED LEAKING AT A BEAL BEPORE AND AFTER THE TEST.                                                                                                                                                                                                                                                                                                                                                                                 | MEANED LEAKING AT A 1                                                                         | EAL BETTOM                                     | T & O A 3                             | 2<br>2                                  | I 1687.                                                                                                                                   |       |
|   | BYBTEN EFFECT-MONE-LEAR                                                                 | STREET EFFECT-WONE-LEAK WAS NOT LARGE ENGUGN TO CAUSE ANY NAME'LL EFFECT.                                                                                                                                                                                                                                                                                                                                                                                                     | HARM'UL EFFECT.                                                                               |                                                |                                       |                                         |                                                                                                                                           |       |
|   | WENICLE EFFECT-COMPOSITE RESCHEDULED.                                                   | . AESCHEDULED.                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                               |                                                |                                       |                                         |                                                                                                                                           |       |
|   | CORRECTIVE ACTION-THE AC                                                                | ACTUATOR WAS REPLACED. SYSTEM AND COMPOSITE RETESTING WAS CONDUCTED.                                                                                                                                                                                                                                                                                                                                                                                                          | CHECOLITE RETENTING NA                                                                        | B COMBACT                                      | á                                     |                                         |                                                                                                                                           | 1     |
|   | HTDAALEIC-A/B<br>BUSTAINER/VE.NIER                                                      | 28-7-079/38-214-C4-01<br>HTDRAULIC PRESSURE BMITCH                                                                                                                                                                                                                                                                                                                                                                                                                            | CAPTIVE<br>BATTCH SO                                                                          | 16<br>167000                                   |                                       | 4 Q                                     | ######################################                                                                                                    | :     |
|   | FAILURE MODE-FAIL TO OPERATE AT<br>IN PREPARATION INCOMPLETE CUIOFF.                    | IL 10 CPEKATE AT PRESCRIBED TIME, A MALFUNCTION OF THE BUSTAINER NYDRAMAIC PRESSURE BARTCH RESULTED MCOMPLETE CUIGFF.                                                                                                                                                                                                                                                                                                                                                         | CTION OF THE BUSTAINS                                                                         | A HYDRANE.                                     | TO PRESOU                             | ä                                       | ITCH RESULTED                                                                                                                             |       |
|   | SYSTEM EFFECT-INPROPER D                                                                | HPROPER DISCRETE SIGNAL.                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                               |                                                |                                       |                                         |                                                                                                                                           |       |
|   | VEHICLE EFFECT-PREMATURE                                                                | PREMATURE PROPULSION CUTOFF.                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                               |                                                |                                       |                                         |                                                                                                                                           |       |
|   | CORRECTIVE ACTION-NOME.                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                               |                                                |                                       |                                         |                                                                                                                                           | 1     |
|   | HYDRALL I C-A/B<br>BUSTAINER/YERNIER                                                    | 98-10-042<br>HTDRAULIC MMIFTULD ASSEMBLY                                                                                                                                                                                                                                                                                                                                                                                                                                      | FAR<br>87-8538 D-1                                                                            | #10#                                           | #5                                    | <b>1</b> 3                              | TES CONVAIR<br>NO                                                                                                                         | •     |
|   | FAILURE MODE-STRUCTURAL-<br>BECAUSE FITTINGS MERE OVE                                   | RUCTURAL-THO FLAME DEATS NEME CONCAVE AND THE -7 TUBE FLAME IND CRACKED AND DACHEN. FAILURE OCCURED, MERE OVER-TORSUED.                                                                                                                                                                                                                                                                                                                                                       | 146 -7 146 PLANE WAI                                                                          | CHACKE                                         |                                       | ē<br>÷                                  | TIME OCCURED                                                                                                                              |       |
|   | CORRECTIVE ACTION-PRODUC                                                                | CH-PRODUCTION PERSONNEL MANE BEEN INFORMED TO ADMENE STRICTLY TO APPLICABLE INSTALLATION PROCEDUNES.                                                                                                                                                                                                                                                                                                                                                                          | TO ADMENE STRICTLY 1                                                                          | 0 APP.1CM                                      | ME 1987A                              | ¥ 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 | DN PROCEDURES.                                                                                                                            |       |
|   | MTORALL IC-A/B<br>WERNIER SOLO-YSHPS                                                    | LV-00-04-4660-F<br>C-RIME AND PELT LUBRICATORE/INDO V ET-0531:E-005<br>ERNIER ACTUATOR ASSY                                                                                                                                                                                                                                                                                                                                                                                   | PAR<br>V 27-65312-605                                                                         | 3130<br>640717                                 | PACTORY                               | 5 9                                     | TES LIGHEL PACIFIC                                                                                                                        | <br>8 |
| 1 | FAILURE MOCE-CONTABINATION AND ANTE OF 3 DROPS IN 24 HOURS AT USE WAS G-MING-MOLDING DE | FAILURE MOCE-CONTABINATION, THE ACTUATOR ASSEMBLY LEARED HYDRAULIC OIL BETHEEN ACTUATOR PISTON ROD AND MOUSING AT A<br>BATE OF 3 DROPS IN 50 MINUTES (NO PRESSURE GIVEN). AMALTSIS CONTINNED A LEARAGE RATE IN EKCESS OF SPECIFICO LIMITE.<br>OF 1 DROP IN EX HOURS AT STATIC PRESSURE AND 1 DROP IN ES FULL STROKE CYCLES POR BYMANIC OPERATION. THE INDICATED CA<br>USE MAS O-RING-HOLDING DEFECTS AND POSSIBLE PELT LUBRICATOR CONTAHINATION ON THE PISTON SEALING O-RING. | NYDEAULIC OIL BETMED<br>18 COMTINED A LEAGA<br>FULL BYRONE CYCLES PO<br>R CONTANTANTION ON TH | ACTUATOR<br>E RATE IN<br>R BYMANIC<br>E PISTON | PISTON R<br>EKCESS OPERATION          | 8                                       | ICTUATOR PISTON ROD AND MOUSING AT A<br>RATE IN EXCESS OF SPECIFIC LISTE<br>BYNAMIC OPERATION. THE INDICATED CA<br>PISTON BEALING O-RING. |       |
|   | CORRECTIVE ACTION-DESIGN                                                                | ON-DESIGN MENO 062-10-13 BATED 048723 INCREASED THE PERNISSIBLE LEAR RATES AND DEFINED TESTS FOR DET<br>AK RATES:                                                                                                                                                                                                                                                                                                                                                             | CABED THE PERHIBSIBAL                                                                         | LEAR BAT                                       | 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 | Š                                       | 76178 FOR BE                                                                                                                              |       |

SENERAL DYNAMICS CONVAIR DIVISION

18 JUN 1966

| TATEN-AIRBORNE               |
|------------------------------|
| •                            |
| IPFICULTIES REVIEW-HYDRAULIC |
| DIFFICULTIES                 |
|                              |

|                                                       | DITTICULIES REVIEW-MTSMACIC STRICK-AIRBORNE                                                                                                                                                                                            | AULIC STRIEN-AIRBOR                       |                              |                  |                           |                                                                      |                                         |
|-------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|------------------------------|------------------|---------------------------|----------------------------------------------------------------------|-----------------------------------------|
| BVBTEN<br>BUB-373TEN                                  | TEST/REPORT NUMBER<br>FAILED COMPONENT NAME                                                                                                                                                                                            | DIF DATA SOURCE<br>PART NUMBER            | VEHICLE<br>DATE BIF          | 817E<br>TINE DIF | PRI VEN                   | VENICLE BITE PRI VENDOR NAME<br>DATE BIF TINE BIF OTH VENDOR PAST NO |                                         |
| HTORAULIC-A/B<br>VERNIER SOLO-VSHPS                   | 90-10-088<br>HYDRAULIC TEE PITTING 3/8 TO 1/E I ET-65406-T<br>NCH                                                                                                                                                                      | FAR<br>27-65406-7                         | 111D<br>010010               | ETA              | YES CONVAIR<br>NO         | VA 1.0                                                               | :                                       |
| FAILURE MOE-STRUCTURAL-<br>M A BAITILE MATERIAL AND   | FAILURE MOE-STRUCTURAL-1/2 INCH CENTER LES BROKE ANNY FROM THE BODY OF TEE. FITTING PAILED BECAUSE IT NAS MADE FRO<br>H a Baitile material and used in a marsimal Desión.                                                              | THE BODY OF TEE. P.                       | 17114 641                    | LED DECA         | 15 36.                    | 18 MADE PRO                                                          |                                         |
| CORRECTIVE ACTION-A M.A.                              | CORRECTIVE ACTION-A M.A.R. WAS INITIATED TO CREATE AS PART MADE OF 2024-14 ALUNIMUM INSTEAD OF THE TOTSIS.                                                                                                                             | MDE OF EDE4-T4 ALU                        | IIMM IMET                    | FAD OF TO        | Æ 7075T                   | :                                                                    | ··=-/-=                                 |
| HYDRAULIC-A/B<br>WERNIER BOLO-V2HPS                   | 90-10-077<br>TEE-FLARED TUBE 3/8 TO 1/E INCH.                                                                                                                                                                                          | FAR<br>27-05400-7                         | 000010                       | ÇTA              | TES CONVAIR<br>NO         | /A18                                                                 | 0.13                                    |
| FAILURE MODE-STRUCTURAL-                              | FAILURE MODE-STRUCTURAL-THREADED MALE SIDE PORT OF THE TEE BHEARED OFF OF THE BODY.                                                                                                                                                    | DHEARED OFF OF THE I                      |                              |                  |                           |                                                                      |                                         |
| CORRECTIVE ACTION-NOME.                               | CORRECTIVE ACTION-MOME. FITTING BUBLECTED TO OVERSTRESS.                                                                                                                                                                               |                                           |                              |                  |                           |                                                                      |                                         |
| HERNIER SOLO-VSHPS                                    | 98-10-530<br>Vernica enging Bupply Pilter                                                                                                                                                                                              | FAR<br>E7-06564-5                         | 900<br>901810                | 8                | 7E8 PUROLATOR<br>NO 64867 | A.A.TOR                                                              | *************************************** |
| FAILURE MCDE-CONTANINATI                              | FAILURE MOE-CONTANINATION-BUSPECTED OF CONTAINING EXCESSIVE CONTANINATION.                                                                                                                                                             | E CONTANIMATION.                          |                              |                  |                           |                                                                      |                                         |
| CORRECTIVE ACTION-NOME-P                              | CORRECTIVE ACTION-NOME-MORE RIGID MEASURED TO PREVENT CONTANINATION HAVE BEEN TAKEN.                                                                                                                                                   | MINATION HAVE BEEN                        | TAKEH.                       |                  |                           |                                                                      |                                         |
| HYDRALL IC-A/B<br>VERNIER SOLO-19HPS                  | AE60-0107/FC-4C0-01-98<br>61MBAL 3EAL                                                                                                                                                                                                  | CONFOST TE-FACTORY                        | 5.00<br>9.00<br>9.00<br>9.00 |                  | 7C3                       |                                                                      | *****                                   |
| FAILURE MODE-EXTERNAL LE<br>B REPLACED. EARATIC MOVEM | PAILURE MODE-EXTERNAL LEAK-A MYDRAULIC LEAK WAS POUND IN THE WERNIER ENGINE NO. 1 ENGINE SINDAL SEAL. THE ENGINE<br>B replaced. Earatic movement indicated on composite test has believed to be caused by air in the mydraulic system. | e Vernier emeine no<br>Believed to be cau | . 1 EMENE                    | PINDAL IN        | EAL. TH                   | GINDAL BEAL: THE EMEINE WA                                           |                                         |
| SYSTEM EFFECT-ERRATIC OPERATION.                      | ERATION.                                                                                                                                                                                                                               |                                           |                              |                  |                           |                                                                      |                                         |
| VEHICLE EFFECT-COMPOSITE                              | MEMICLE EFFECT-COMPOSITE RESCHEDULED. RESUN OF COMPOSITE NADE.                                                                                                                                                                         | ä                                         |                              |                  |                           |                                                                      |                                         |
| CURRECTIVE ACTION-REPLACED VERNIER ENGINE.            | ED VERNIER EMBINE.                                                                                                                                                                                                                     |                                           |                              |                  |                           |                                                                      |                                         |

GENERAL BYMANICS CONVAIR DIVISION

7

11 1/4 1986

BIPPICULTIES REVIEW-HYDRAWLIC SYSTEM-AIRBORNE

| STREM<br>SUB-STREM                                                           | TESTARFORT HUBER<br>PAILED CONFORMT NAME                                                                                                                                                                                                                                                                                                      | DIF DATA SCURCE<br>PART NUMBER                                                                                                                        | VEHICLE<br>DATE BIF     | 817E PR1    | # ö      | VENDOR NAME<br>VENDOR PART NO         |                                       |
|------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|-------------|----------|---------------------------------------|---------------------------------------|
| HTDRAULIC-A/B<br>WERNIER SOLO-VEMPS                                          | AZC-27-062/F1-401-00-86                                                                                                                                                                                                                                                                                                                       | PLIENT                                                                                                                                                | 2 2                     | = =         | 33       |                                       | •                                     |
| FAILURE HODE-OUT OF TO<br>OPULSION STSTEM FAILURE<br>RON DECREASED VERNIER E | FAILURE HODE-OUT OF TOLERANCE, HIGH WERNIER BOLD HYDRAULIC PRESSURE. THIS CONDITION IS TWOUGHT TO BE CAUSED BY A PR<br>OPULSION SISTEM FAILURE THAT RESULTED IN PROZEN HYDRAULIC LIGES MEAR THE VE EMSIME. THE MIGH PRESSURE COULD REPULT P<br>RON DECREASED YEARIER EMSINE DEMANDS AND LEARAGE RATES BEING CONSIDERABLY REDUCED PROM MORNAL. | PRESSURE. THIS COM<br>GES HEAR THE VE EMS<br>CONSIDERABLY REDUC                                                                                       | I TI ON TO THE PROPERTY | MOUGHT THES |          | CAUSED BY A PR<br>COILD RESULT F      | ·                                     |
| SYSTEM EFFECT-OPERATION TOO HISM.                                            | H 700 HISE.                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                       |                         |             |          |                                       |                                       |
| WENICLE EFFECT-NOME.                                                         |                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                       |                         |             |          |                                       |                                       |
| CONFECTIVE ACTION-NOME.                                                      |                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                       |                         |             |          |                                       |                                       |
| HYDRAULIC-A/B<br>WENIER SOLO-VSHPS                                           | 56-10-039<br>Explosive air Release Value Assens 27-06560-3<br>Lt. Pin                                                                                                                                                                                                                                                                         | FAR<br>1 27-06580-3                                                                                                                                   | 900199                  |             | 7 G<br>6 | YES COMAX CONFORAT<br>NO ION<br>SOLLA |                                       |
| FAILURE MODE-OPEN (ELE<br>N. DURING MANAFACTURING<br>LEAD.                   | FAILURE MODE-OPEN (ELECTRIC) - THE VALUE FAILED TO FIRE WHEN REQUIRED BECAUBE A LEAD TO PIN B ON COMMETON WAS BROKEN DELECTRICAL. IN THE PARTIAL BENEATING OF THE ELECTRICAL LEAD.                                                                                                                                                            | FAILED TO FIRE WHEN REGUINED BECAUME A LEAD TO PIN B ON COMESTON WAS BROKE OPERATION BY THE VENDOR RESULTED IN THE PARTIAL BEVERING OF THE ELECTRICAL | LEAD TO I               | IN B ON     | 8 8      | CTON MAS BROKE<br>ME ELECTATCAL       |                                       |
| CORRECTIVE ACTION-THE                                                        | COARECTIVE ACTION-THE VENDOR WAS NOTIFIED AND THIS LOT OF VALVES NEME REJECTED.                                                                                                                                                                                                                                                               | MANES WENE REJECTED                                                                                                                                   | •                       |             |          |                                       |                                       |
| HYDRAULIC-A/B<br>MERNIER SOLO-YMPB                                           | 82-408-C6-E4<br>VERNIER BOLO ACTUATION VALVE BRUID                                                                                                                                                                                                                                                                                            | CAPTIVE                                                                                                                                               | #46<br>#41006           | : .<br>Bi:: | 35       |                                       | •                                     |
| FAILURE MEDE-FAILED TO CUTUFF THUS PREVENTING                                | FAILUME MUDE-FAILED TO OPERATE AT PRESCRISED TIME, THE VERNIER SOLD ACTUATION VALVE SANIS BIS NOT FIRE AT SUBTAINER<br>Cutoff thus preventing the Preumatic Flash From Discharsins.                                                                                                                                                           | IIER BOLG ACTUATION                                                                                                                                   | Mar. 16 .               | 9           | :        | g at eletaingn                        |                                       |
| BYSTEM EFFECT-OPERATION TONILLY, MECESSITATING T                             | SYSTEM EFFECT-OPERATION DOES NOT STAME, THE LACK OF PMEUMATIC PRESSURE PREVENTED THE VEHYS FROM PREFORMING SATISFACTORILY, HECESSITATING THAT THE WENLER GINGALLING PROGRAM BE ATTAINED WITH GROUND HYDRANGIC PRESSURE.                                                                                                                       | TIC PRESSURE PREVENT<br>L'ATTAINED MITH GACU                                                                                                          | 10 77K VB               | FS FROM     | 1        | BRING BATISFAC                        |                                       |
| VEHICLE EFFECT-NONE                                                          |                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                       |                         |             |          |                                       |                                       |
| HYDRAULIC-A/B<br>WERNIER BOLO-VEMPS                                          | A7C-27-078/73-404-00-17                                                                                                                                                                                                                                                                                                                       | PIEM                                                                                                                                                  | 170                     |             | ŠŠ       |                                       | · · · · · · · · · · · · · · · · · · · |
| FAILURE MODE-PAIL TO O                                                       | FAILUNG MODE-FAIL TO CPERATE AT PRESCRIEGES TIME. THE VEHPS DID MOT ACTIVATE AT BUSTAINER CUTOFF DUE TO EITHER A FAI<br>Lune of The explusive value to operate on a lack of compresses air in the air plaba.                                                                                                                                  | DIB NOT ACTIVATE AT                                                                                                                                   | eveta ing.<br>LABK.     | 1 CUTOFF    | 3        | O EITHER A FAI                        |                                       |
| STSTEM EFFECT-OPERATIO                                                       | STRICH EFFECT-OPERATION DOES NOT START, WERALULIC PRESSURE UND NOT SUPPLIED BURIND THE VERNIER SOLD PRASE OF PLIENT                                                                                                                                                                                                                           | ME NOT SUPPLIED BY                                                                                                                                    | AT 41.1                 | RANIER .    | 9        | MARE OF PLICHT                        |                                       |
|                                                                              | VEHICLE EFFECT-LOSS OF VEHICLE STABILITY. HO VERHIER CONTROL BURING VERHIER SOLO PHASE OF PLISHT.                                                                                                                                                                                                                                             | X. BURING VERNIER DO                                                                                                                                  | CO PRABE                | W P. C. M.  | <u>.</u> |                                       |                                       |

PASE 0310

S78TEM EFFECT-OPERATION STOPS PREMATURELY- WERNIZA MYDRAULICS DECAYED TO SROUND LEWEL OF 1840 PRIS 3.8 SEC AFTER SE Co.

CORRECTIVE ACTION-INSTRUCT PERSONNEL.

VEHICLE EFFECT-NONE.

FAILURE MODE-FAILURE DURING OPERATION- AIR PLASK WAS NOT CHARGED DUE TO MUMAN ERROR.

GENERAL DYNAMICS CONVAIR DIVISION

¥

19 1UN 1966

The second section of the second section is a second section of the second section of the second section is a second section of the second section of the second section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section section secti

| 9 4 6 1 KO7 4 1                                                       | DIFFICULTIES REVIEW-HYDRAULIC SYSTEM-AIRSORNE                                                                                                                                                                                                                                                                               | AULIC SYSTEM-AIRBOR                                       | ¥                   |           |                     |                                   |                                         |
|-----------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|---------------------|-----------|---------------------|-----------------------------------|-----------------------------------------|
| Eraten<br>808-araten                                                  | TESTARFORT HUMBER<br>FAILED COMPONENT NAME                                                                                                                                                                                                                                                                                  | DIF DATA SOURCE<br>PART NUMBER                            | WENICLE<br>PATE BIP | 11 PE 011 | # 0<br># 12<br># 12 | WENICLE SITE PRE VENDOR NAME      |                                         |
| CORRECTIVE ACTION-INSTRA                                              | CORRECTIVE ACTION-INSTRUMENTATION WAS ADDED ON 180 TO MEASURE AIR FLASK PRESSURE.                                                                                                                                                                                                                                           | NE AIR FLABK PREBBU                                       | į                   |           |                     |                                   | :                                       |
| MYDRAULIC-A/B<br>WERNICH BOLO-VSHPS                                   | A2H-E7-350/FC-4CO-0E-31<br>ACTUATOR A3SEMBLY                                                                                                                                                                                                                                                                                | COMPOSITE-PACTORY 87-85318                                | 310<br>3900£4       | ::        | ÷ 8                 | VES LIONEL PACIFIC                | •                                       |
| FAILURE MOJE-ERRATIC OF                                               | PAILURE HOJE-ERRATIC OPERATION, A 1.5 VOLT OVERSHOOT MAS NOTED IN VERHIER NO 1 PITCH/KOLL PEEDBACK MAEN THE ROLL DI<br>Splacement stro cutput was grounded. This was caused by air in the htdraulic system.                                                                                                                 | IED IN VERHIER NO 1                                       | PI TCH/KDL<br>BTEH. | 1 /5559/  | 3                   | EN THE ROLL DE                    |                                         |
| SYSIEM EFFECT-ERRATIC OF                                              | SYSTEM EFFECT-ERRATIC OPERATION. POOR FILL AND BLEED CAUSED ERRATIC OPERATION OF VERNIER NO. 1 PITCH/ROLL ACTUATOR.                                                                                                                                                                                                         | ERRATIC OPERATION                                         | OF VERMIER          | i i       | 11CM                | HOLL ACTUATOR.                    |                                         |
| VEHICLE EFFECT-COMPOSITE RESCHEDULED.                                 | E RESCHEDULED.                                                                                                                                                                                                                                                                                                              |                                                           |                     |           |                     |                                   | · · · · · · · · · · · · · · · · · · ·   |
| CORRECTIVE ACTION-FILL                                                | CORRECTIVE ACTION-FILL AND BLEED ON HYDRAULIC SYSTEM WAS PERFORMED. PARTIAL COMPOSITE RETEST WAS PERFORMED.                                                                                                                                                                                                                 | RFORMED. PARTIAL CO                                       | POSTTE RE           | 7E3T MA   | FER                 | ORMED.                            |                                         |
| HTDRALLIC-A/B<br>VERNIER SOLO-VSHPS                                   | AZC-ET-033/PL-404-00-11<br>Vernier system hydraulic supply Li<br>He                                                                                                                                                                                                                                                         | FLIGHT                                                    | 110<br>990783       | 100       | ð ä                 | <b>3/0</b> 3                      | *************************************** |
| FAILURE MODE-FAIL DURING<br>LOK LEAK IN ENGINE COMP.                  | FAILUKE MODE-FAIL DURING OPERATION. VERNIER HYDRAULIC PRESSURE SUPPLY LINE PRON SOLO SUPPLY UNIT FROZE AS RESULT OF<br>Lok lear In Emgine Compathent. Engine Compartnent Temperature Instrumentation reflected a colà environment.                                                                                          | URE SUPPLY LINE FRO                                       | N BOLO BUF          | PLY UN!   | ENVI                | E AS RESULT OF                    |                                         |
| SYSTEM EFFECT-OPERATION STOPS SECONDS OF VERNIER SOLD PHASE.          | SYSTEM EFFECT-OPERATION STOPS PREMATURELY. NO WYDRAULIC CONTROL, PRESSURE PROWIDED TO VERNIER ENLINES AFTER FIRST S<br>Econds of Vernier solo phase.                                                                                                                                                                        | ITACL. PREBBURE PROFIL                                    | 00 00 00 VE         | MIER EA   | , K                 | AFTER FIRST S                     |                                         |
| VEHICLE EFFECT-LOSS OF ALE STATE AND A ROLL NIRT VEHICLE IMPACT 148.5 | VEHICLE EFFECT-LOSS OF VEHICLE STABILITY. LACK OF VERNIER CONTROL RESULTED IN LOSS OF VEHICLE STABILITY DURING WEN<br>Let 10.0 phase and a roll motion was imparted to vehicle. As result, re-entry vehicle was buipted at Heparation. Re-e<br>NTRY VEHICLE IMPACT WAS SAFISFACTORY, MOMEVER, DATA CAPSULE WAS NOT EJECTED. | ONTRCL RESULTED IN<br>1 RESULT, RE-ENTRY WAS NOT EJECTED. | LOSS OF WE          | MICLE BY  | 4 4                 | ITY DURING YEAN<br>PARATION. RE-E |                                         |
| CORRECTIVE ACTION-UNKNOWN.                                            | <b>.</b>                                                                                                                                                                                                                                                                                                                    |                                                           |                     |           |                     |                                   |                                         |
| HTDRAULIC-A/B<br>VERNIER BOLO-VSHPS                                   | 81-407-43-02<br>Air Plask                                                                                                                                                                                                                                                                                                   | CAPT I VE<br>27-06578-1                                   | \$0<br>\$60713      | 3         | <b>2</b> 8          | YES MANTER KIDDE                  | •                                       |
|                                                                       |                                                                                                                                                                                                                                                                                                                             |                                                           |                     |           |                     |                                   |                                         |

GENERAL DYNAMICS CONVAIR DIVISION

18 1UR 1866

<

**4** 

| 2001 201 21                                                                                                      | DIPPICULTIES REVIEW-HYDRAULIC SYSTEM-AIRBORNE                                                                                                                                                                                                                                   | AULIC BYSTEN-AIRBOR            | ¥                      |              |                                               | ,       |
|------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|------------------------|--------------|-----------------------------------------------|---------|
| 8/8-375/EM                                                                                                       | TESTARFONT NUMBER<br>FAILED COMPONENT NAME                                                                                                                                                                                                                                      | DIF DATA SOURCE<br>PART NUMBER | VEHICLE<br>DATE DIF T  | TIME DIF OTH | VENDOR PARE NO                                |         |
| HYDRAULIC-A/B                                                                                                    | B8-10-03E FAR PRESENT REGULATOR, SEAL 7-D8-124-1                                                                                                                                                                                                                                | FAR<br>7-08484-1               | 90<br>90708            | 46.8<br>004  | 11840<br>11840                                | 11.00   |
| FAILURE HODE-FAILURE DU<br>AIMED IN THE FULL OPEN P                                                              | LURE DURING OPERATION-DURING OPERATION CHECKOUT OF THE VERNIER HYDRAULIC SUPPLY STRIEN THE UNIT REN<br>. Open Position.                                                                                                                                                         | KOUT OF THE VERNIER            | HYDRAGEIC              | DUPPLY 8781  | EN THE UNIT AEN                               |         |
| CORRECTIVE ACTION-IT WAS RECING AND THE GAS FLOW PASSAGE.                                                        | CORRECTIVE ACTION-IT WAS RECOMMENDED TO REDEBIGN THE VALVE MANIFOLD BEAL TO INCLUDE A METAL AMMALUS BETHEEN THE O<br>WE AND THE GAS FLOW PASSAGE.                                                                                                                               | MANIFOLD BEAL TO IN            | CLUDE A HET            | AL AMMELUS   | BETHEEN THE O A                               |         |
| NYORALLIC-A/B<br>VERNIER S LO-VSHPS                                                                              | 66-10-027<br>HTDRAULIC ACCUMULATOR, O-RING                                                                                                                                                                                                                                      | FAR<br>27-08567-1              | 909036                 | 7E 8         | YES PARKER AIRCRAF<br>NO T CO.<br>1358-542897 | 53      |
| FAILUPE MODE-INTERNAL 11 E + TORAULIC END CAP AND                                                                | FAILUPE MODE-INTERNAL 'EAK - GAS PRE-CHARGE LEAKED TO THE HYDRALLIC BIDE DUE TO A CUT IN THE O'RIMG BEAL BETMEN TH<br>P'EDRALLIC END CAP AND THE CYLINGER BLEEVE.                                                                                                               | TORAULIC SIDE DUE T            | 0 A CUT IN             | THE O BING   | <b>3</b> EAL <b>3</b> ETMEN TH                | ·····   |
| CORRECTIVE ACTION-THE VENDUR MAY C<br>LIDGE FROM THE CTLINDER SLEENE, PER<br>R VEHE ALINSPECTED FOR LUT O-RINGS. | CORRECTIVE ACTION-THE VENOUS MAY CONTACTED AND HE WILL TARE ACTION TO IMPROVE ASSEMBLY PROCEDUMES, RENOVE THE SHARP<br>LDUE FROM THE CYLINDER SLEEVE, PERFORM LEAR CHECKS USING GAS INSTEAD OF HYDRAULIC OIL. ALL UNITS IN STOCK AT CONVAI<br>NERE AZINSPECTED FOR LUT O-RIMSS. | ACTION TO IMPROVE.             | ASSEMELY FRA           | OCEDUMES. A  | STOCK THE SHARP                               |         |
| HYDRAULIC-A/S<br>WERNIER SOLO-VSHPS                                                                              | 32-415-63-09<br>COMAR VALVE, TIMER                                                                                                                                                                                                                                              | CAPTIVE                        | 22 925046<br>24 925046 | 8 E . 17     | COMAR CORPORATION SOLLA                       | ******* |
| FAILURE MODE-FATE TO UP                                                                                          | L TO OPERATE AT PRESCRIBED TIME, VAMPS FIRED 15.5 SECONDS AFTER SECO INSTEAD OF AT SECO. THIS WAS ITTIMER WHICH MALFUNCTIONED.                                                                                                                                                  | D 10.8 SECONDS AFTE            | A SECO INST            | EAD OF AT 1  | ECO. THIS MAS C                               |         |
| SYSTEM EFFECT-OFERATION<br>SAPS FIRENCE.                                                                         | STREET EFFECT-OPERATION TOO LAM. HYDRAULIC PRESSURE DECATED TO GROUND PRESSURE USING PAINS BURING INTERVAL BEFORE MAYS FIRMS.                                                                                                                                                   | TO SHOUND PRESSURE             | 4160 Pale              | PARTE I      | ITERVAL BEFORE V                              |         |
| WENTELE EFFECT-MONE.                                                                                             |                                                                                                                                                                                                                                                                                 |                                |                        |              |                                               |         |
| CORRECTIVE ACTION-REPLA                                                                                          | CORRECTIVE ACTION-REPLAED TINER, WAE ERUIPHENT.                                                                                                                                                                                                                                 |                                |                        |              |                                               |         |
| HYDMAULIC-, /B                                                                                                   | 88-10-024<br>HTD43ULIC ACCUMULATOR, O-RING                                                                                                                                                                                                                                      | FAR<br>87-06567-1              | 180487                 | ž č          | MO T CO 1350-54200?                           | ••••    |

PAILUCE MODE-INTERNAL LEAS - 648 PRE-CHARGE LEGAEG TO THE HYDRAULIC BIDE DUE TO A CUT IN THE O RIM6 BEAL BETWEEN TH E mydraulic end cap and the cylinder bleeve.

COMECTIVE ACTION-THE VENDOR WAS CONTACTED AND HE WILL TAKE ACTION TO IMPROVE ASSENDET PROCEDURES AND TIGHTEN ICST REQUIREMENTS.

GENERAL DYNAMICS CONVAIR BIVILION

18 JUN 1966

DIFFICUL IES REVIEW-HYDRAULIC SYSTEM-AIRBA

|       | 8781E1<br>848-8188                                                                             | FAILED COMPONENT NAME                                                                                                                                                                                                                                                                                | PART NUMBER                                                                                                                                                                                         | DA 7E 019                | 714 DI                            |            | DATE DIF THE DIF OTH VENDOR PART NO                |             |
|-------|------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|-----------------------------------|------------|----------------------------------------------------|-------------|
|       | HTORAULIC-A/B<br>WERNIER BOLO-YBHPB                                                            | 98-10-019<br>Pune Assemly                                                                                                                                                                                                                                                                            | FAR<br>87-06300-001                                                                                                                                                                                 | 100400                   | <b>85</b>                         | 50         | TES VICKERS<br>NO PF76-3907-30-8<br>35g            | •           |
|       | FAILURE MODE-ENTERNAI<br>CORRECTIVE ACTION-TH<br>E OF OVERHAUL AND REST                        | FAILUME MODE-EXTERNAL LEAR. THE PLUID LEARAGE NAS 40 DROPS PER MINUTE.<br>Corrective action-the Failume was not confirmed. It was recomended to return the unit to the vendor for the purpos<br>Of Overhall and restoring to operating condition.                                                    | PB PER HIMUTE.<br>RECOMENDED TO RETURN                                                                                                                                                              | 7 TE GEI T               | 5<br>#<br>#                       | <b>5</b>   | POR THE PURPOS                                     | <del></del> |
|       | HTORAULIC-A/B<br>WERNIER BOLO-VSHPS                                                            | ZC-7-EDG/P4-ED1-00-08<br>VERNIER NYDRAULIC ACCURALATOR                                                                                                                                                                                                                                               | F.1647<br>27-06567-1                                                                                                                                                                                | *160es                   | 28                                | 2 8        | PARKER AIRCRAF<br>1 CO<br>1356-542007              | 01:7        |
|       | FAILURE MODE-FAIL TO<br>OBSIBLY BECAUSE THE GO                                                 | FAILURE MODE-FAIL TO CHERATE AT PRESCRIBED TIME, WEANIER HYDRAULIC BYSTEN FAILED TO PROVIDE PRESSURE TO ACTUATORS P<br>Cossibly because the GME Plask had been imdeguately charged or mad leaked.                                                                                                    | HYDRAULIC BYSTEN FAILD OR HAD LEAKED.                                                                                                                                                               | 1.E5 TO PRO              | VIDE PRES                         | 15         | TO ACTUATORS P                                     |             |
|       | SYSTEM EFFECT-OPERATI                                                                          | EPATION DOES NOT START. PRESSURE FOR CONTROL OF VERNIER ENGINES WAS NOT AVAILABLE.                                                                                                                                                                                                                   | IROL OF VERNIER ENGI                                                                                                                                                                                | Co we not                | AVAILABL                          | ü          |                                                    |             |
|       | VEMICLE EFFECT-NOIC.                                                                           | WEFICLE EFFECT-HOME. ALTHOUGH HD ADWERSE EFFECTS REMALTED, WERNIER EMSIME CONTROL BURING WERNIER BOLD HAS LOST.                                                                                                                                                                                      | ), VERNIER EMINE CO                                                                                                                                                                                 | ITROL DURIN              | • VERMATER                        | 8          | WAS LOST.                                          |             |
| 1     | CORRECTIVE ACTION-UM                                                                           | CORRECTIVE ACTION-WARNDAN. SYSTEM LATER REDESIGNED.                                                                                                                                                                                                                                                  |                                                                                                                                                                                                     |                          |                                   |            |                                                    |             |
|       | MTDRAULIC-A/B<br>WERNIER SOLO-VSHPS                                                            | 2C-7-204/P1-203-00-05<br>HYDRAULIC PUPP, BOTTLE STONAGE                                                                                                                                                                                                                                              | FL1647<br>97-08300-003                                                                                                                                                                              | 2 20 2                   | 2.5<br>2.5<br>2.5                 | <b>5</b> 8 | VICKERS<br>PF76-3907-30-8<br>352                   | 3 2 2 3     |
|       | FAILURE HODE-FAIL TO<br>TER ACTUATORS DURING 1<br>O. PUMP DISCHARGE PREI<br>TION.              | FAILURE MODE-FAIL TO CYCRATE AT PRESCRIBED TIME, WERNIER HYDRAULIC PUMP PAILER TO BUPPLY HYDRAULIC PRESSURE TO WERN IER ACTUATORS DURING WESSURE BONG, SUBMCY PRICE TO SEC O. PUMP DISCHARGE PRESSURE WAS CALY SO PERCENT OF NCHINAL AT SECO AND DECAYED TO ZEND IN PEN TENTHS SECOND ON ACTIVATION. | WENTER HYDRAULIC PURP FAILED TO SUPPLY HYDRAULIC PRESSURE TO WENTEN WAS LON CHARGE OR LEARAGE IN PURP HOTOR GAS SUPPLY PRICK TO SECHINAL AT SECO AND DECAYED TO ZERO IN PEN TENTHS SECOND ON ACTIVA | TO TO BUPP.              | T HYDRAUL<br>OTOR EAS<br>PEN TENT | 7. 3 ±     | ESSURE TO VERN<br>T PRIOR TO SEC<br>COMD ON ACTIVA |             |
|       | BYSTEN EFFECT-OPERATI<br>ATION,                                                                | eation does not start. Vernier divine actuators bid not have necessary hypraulic pressure por open                                                                                                                                                                                                   | CTUATORS BID NOT HAM                                                                                                                                                                                | . NECESSAAY              | HYDRAUL.                          | Ě          | SSURE FOR OPER                                     |             |
|       | VEHICLE EFFECT-LOSS OF VEHICL<br>A HYDRAULIC PRESSURE FAILED.<br>OUSLT AFFECT IMPACT ACCURACT. | YEMICLE EFFECT-LOSS OF VEMICLE BYABILITY. CLOBED LOOP GUIDANCE CONTROL OF VERNIER EMBINES LOBT WHEN YERNIER ACTUATO<br>A hydraulic Pressure Failed. Bone Vemicle imbiability rebulted bue to lobs of Vernier Control But not Finduam to bere<br>Oubly affect impact accuracy.                        | DANCE CONTROL OF NO<br>ALTED DUE TO LOBB OF                                                                                                                                                         | MICH EMBIN<br>Vermich co | ES LOST N<br>NTROL BUT            | Ş          | ERNIER ACTUATO<br>ENDUM TO SERI                    |             |
|       | CORRECTIVE ACTION-NOME.                                                                        | j                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                     |                          |                                   |            |                                                    |             |
| 1 2 3 | HYDRAULIC-A/B<br>VERNIER BOLO-YBMPS                                                            | EMIDED/TEST 14-507<br>ACTUATOR ASSEMBLY, WIRING                                                                                                                                                                                                                                                      | CAPTIVE<br>£7-05311                                                                                                                                                                                 | \$60613                  | 7.2                               | 2 2        | CLENCO/ON INTE                                     | <del></del> |
|       | FAILURE MODE-FAILED O                                                                          | FAILUME MODE-FAILED DUMING OPERATION. WE EMBINE DRIFTED TO VERTICAL BTOP IN YAW AND BURNES THROU WINNIER PLANE BEFLE<br>Ctor as a result of broken wire at We Tan Berno Walve Commetton. At ha arcomba befreter want camen and a una                                                                 | TO VERTICAL BTOP IN THE                                                                                                                                                                             | AV AND BUR               | MED THRU                          | 200 m      | ER PLANE BEFLE                                     |             |

CONVAIR BIVIBION

٨

4

\*\*\*\*

| SYSTEM<br>BUB-SYSTEM                                                                                           | TEST/REPORT NUMBER DIF DATA BOURCE W                                                                                                                                                                                                                                                                                                                                                             | DIF DATA SOURCE<br>PART NUMBER                                 | WATCLE DATE DIF                        | 110 DIT                             | PRI VEND                    | WENIELE BITE PAT VENDOR MANE BATE BIF THE BIF OTH VENDOR PART NO |             |
|----------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------|----------------------------------------|-------------------------------------|-----------------------------|------------------------------------------------------------------|-------------|
| BYBIEN EFFECT-IMPROPER ANALES RETURNED TO MORMAL POBITION REFLECTED MENT AT 141 BECOMMED THAN PLANE SERLECTOR. | STREET EFFECT-IMPROPER ANALOG BIGMALD, RECENTLY INSTALLED FUNE IN PEEDBACK CIRCUIT BLEW AT DS BECOMDS AND ALL EMGIN<br>ES RETURNED TO MORMAL POSITIONS EXCEPT WE TAN. AT 130 DECOMDS MY TAN BAIFTED 10 DEGREES AS A RESULT OF DANAGE DUE TO<br>REFLECTED PEAT, AT 141 DECOMDS TEST WAS TERNÍMSTED PREMATABLY AFTER MY EMSINE BRIFTED TO WESTICAL STOP IN TAN AND<br>BURNED THAN FLAME SEFLECTOR. | WE IN PEEDBACK CIN<br>B M TAV BUIPTED 16<br>LT AFTER WE EMBINE | CULT BLEW<br>DESIGNED A                | AT 95 BEC.<br>B A REBU.<br>O WETTCA | 000 AIG<br>1 OF DAM         | SE DUE TO                                                        | 1111        |
| WHICLE EFFECT-NOM.                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                |                                        |                                     |                             |                                                                  |             |
| CORRECTIVE ACTION-INCLUDE R PLANE DEFLECTORS.                                                                  | COMECTIVE ACTION-INCLUDED INSTALLATION OF MECHANICAL LOCAS IN PLACE OF THE WERNIER ACTUATORS AND REMOVAL OF WEYALE<br>PLANE DEFLECTORS.                                                                                                                                                                                                                                                          | IN PLACE OF THE WE                                             | ANSER ACTU                             | ATCAS AND                           | REMOVAL                     | JIR-NI D                                                         |             |
| HTDRALLIC-A/B<br>WENHER BOLO-THIPS                                                                             | F744101 /P1 -£04-00-8                                                                                                                                                                                                                                                                                                                                                                            | COUNTDOM                                                       | ************************************** | 11                                  | 7.E8<br>ON                  |                                                                  | :           |
| FAILURE MODE-LEAK-EXIERM                                                                                       | FAILURE HODE-LEAK-EXIERNAL. LEAKAGE IN VERNIER HIGH PRESBURE AIR PLASK PRESBURIZATION SYSTEM.                                                                                                                                                                                                                                                                                                    | TAIR PLASK PRESSUR                                             | 1247108 87                             | •7£                                 |                             |                                                                  |             |
| SYSTEM EFFECT-DEPLETION OF                                                                                     | F CAS SUPPLY. WERNIER AIR PLASK COALS NOT SK PRESSURIZED TO PROPER PRESSURE BUK TO LEARAGE                                                                                                                                                                                                                                                                                                       | A.S NOT SK PRESBURI                                            | 2 2                                    | TO PACE.                            | - NE DE                     | 0 (()                                                            | <del></del> |
| WEMICLE EFFECT-COLNTDOMN                                                                                       | CUNTDOM DELATED. 15 NUMBE HOLD.                                                                                                                                                                                                                                                                                                                                                                  |                                                                |                                        |                                     |                             |                                                                  |             |
| CORRECTIVE ACTION-REPAIRED LEAK.                                                                               | D LEAK.                                                                                                                                                                                                                                                                                                                                                                                          |                                                                |                                        |                                     |                             |                                                                  |             |
| HYDRAULIC-AVB<br>HENIER BOLO-VBHFS                                                                             | FTAA102/F1-E07-00-8<br>Valve-Comail                                                                                                                                                                                                                                                                                                                                                              | COLANTDOMA<br>87-06560-8                                       | 26<br>200716                           | =7                                  | HO COMAN<br>HO ION<br>HO11A | COMA CORPORAT<br>ION<br>NOTES                                    | •           |
| FAILURE MOESTHENATURE OPERA<br>FLASK ERPLOSINE VALWE FIRED.                                                    | DALTUE, OPERATION. AT 1-6 ACCORDS UNDI A MEDAINE CUTOPP HAS INSTINCTED. THE WENLER HIGH PRESSURE AIR VALVE FIRED.                                                                                                                                                                                                                                                                                | LINE CUTOP UND IM                                              | TIATES. TH                             | C MEMICS                            | 3                           | Saues Ale                                                        |             |
| STATEM EFFECT-DEPLETION OF GAS BUPPLY.                                                                         | F CAS BUPLY.                                                                                                                                                                                                                                                                                                                                                                                     |                                                                |                                        |                                     |                             |                                                                  | <del></del> |
| VEHICLE EFFECT-COUNTDOM ABONTED AND RESCHEDULED.                                                               | ABORTED AND RECOGNACED.                                                                                                                                                                                                                                                                                                                                                                          |                                                                |                                        |                                     |                             |                                                                  |             |
| CORRECTIVE ACTION-REPLACED AIR PLASK AND VALVE.                                                                | D ASR PLASK AND VALVE.                                                                                                                                                                                                                                                                                                                                                                           |                                                                |                                        |                                     |                             |                                                                  | 1           |
| HTDRALLIC-A/B                                                                                                  | ENIOZBYTEBY 14-305<br>FEEDBACK TRANSÓNCER, EXCITATION ME<br>RINS                                                                                                                                                                                                                                                                                                                                 | CAPTIVE                                                        | ******                                 | 7;                                  | g g                         |                                                                  |             |
| PAILURE MODE-ELECTRICAL IN TELE UVED TO A REDUCTION IN FEL ERCITATION WIRING EXTERN                            | PAILUNE MOGE-ELECTRICAL MONT. AT -1.51 BECOMDS ALL ENGINE MALL POSITIONS SMIPTED OUT OF VELENANCE. THIS WAS ATRIED OUT OF ACLEGANCE. THIS WAS ATRIED TO A ACOUNT OF MOUND SONDWENE IN PEEDBACK TARNSDUCER EXCITATION WINING EXTERNAL TO THE SERVO ANYLIPTER CAMISTER.                                                                                                                            | MAL POSITIONS SHIP<br>LT OF A SHORT TO SA                      | TES OUT OF                             | TCLEBANC<br>PIERE IN F              | EEDBACK 1                   | MB ATTRIB                                                        |             |

BIBIEN EFFECT-INFROPER ANLIGE BIGNALE, WITH THE LARGE DEFLECTION OF VERNIER TRESHED, MEDIECTED HEAT AND PLANE, CAUSE DESTINATED HANDLE DESTINATION OF VERNIER HANDLE DESTINATION OF THE COUNTING FOC. FURTHER HOVENEST OF BY TAN ACTUATOR, AT BE BECOMDE AND RENAINDER OF RUN, ALL ENGINE FEEDBACKS INDICATED LARGE DRIFTS AS A RESULT OF BRIESHIFTENT BROWTING IN MIRING. PRIMARY WINDING OF EXCITATION TRANSFORMER TRUS WAS OFF

GENERAL BYNAMICS CONVAIR BIVISION

.

•

9961 MOF 51

|                                                                                                                                                                                                                              | DIFFICULTIES REVIEW-HYDRAULIC BYBTER-AIRBORNE                                                                                                                                                                                                                                                                                                                                                                                                                        | AULIC BYSTEN-AIRBON                                                                                                                         | ¥                                    |                                               |                    |                                                |                                         |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|-----------------------------------------------|--------------------|------------------------------------------------|-----------------------------------------|
| STSTEM<br>SUB-STSTEM                                                                                                                                                                                                         | TEST/REPORT NUMBER<br>FAILED COMPONENT NAME                                                                                                                                                                                                                                                                                                                                                                                                                          | DIF DATA SOURCE<br>PART NUMBER                                                                                                              | WENTELE<br>DATE BLP                  | WATCLE BITE PAI                               |                    | VENDOR NAME<br>VENDOR PART NO                  |                                         |
| VENICLE EFFECT-MONE.                                                                                                                                                                                                         | OMC.                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                             |                                      |                                               |                    |                                                | • • • • • • • • • • • • • • • • • • • • |
| HTDRAULIC-A/B<br>WENIER SOLO-VSHPB                                                                                                                                                                                           | EC-7-080/PE-103-00-11<br>YERHIER EMGINE PEEDBACK TRANSOLCER                                                                                                                                                                                                                                                                                                                                                                                                          | Public and and and and and and and and and and                                                                                              | 1                                    | 9 5                                           | 'ES CRESENT        |                                                | ****                                    |
| FAILURE MODE-ELECTRICAL MCESSIVE MEAT CAUSING A DILOT INSTABILITY.                                                                                                                                                           | FAILURE MODE-ELECTRICAL SHORT. IT IS CONCLUDED THAT ONE OF THE WERNIER ENGINE PLEDBACK TRANSDUCERS SHORTED DUE TO E<br>KESSIVE MEAT CAUSING A DECREASE IN AUTOPILOF PEEDBACK EXCITATION. THIS RESULTED IN A SAIN CHANNE MHICH CAUSED AUTOP                                                                                                                                                                                                                           | THE VERNIER EMSINE<br>ATION. THIS RESULTE                                                                                                   | PEEDBACK Y                           | RAMEDICER<br>N CHANKE                         | S SHORTED          | DUE TO E                                       |                                         |
| STSTEN EFFECT-IMPROPER A VEHICLE EFFECT-1.085 OF V THE STOPS. VI AND BOOSTE                                                                                                                                                  | BYSTEM EFFECT-IMPROPER AMALOS BISMALS, AT 51.8 SECONDS THE WE ENSINE MOVED TO THE MARB-OWER POSITION.<br>Vemicle effect-Loss of Vemicle Stability, We smutdown Prematurely 6.5 seconds after ensines were simpalling betracks<br>The Stops, VI and Boostek engines smutdown & seconds Prematurely at 113.5 seconds.                                                                                                                                                  | WE EMELY 6.9 SECONDS<br>UMELY 6.9 SECONDS<br>UMELY AT 113.8 SECO                                                                            | THE MARB-O<br>AFTER ENDS             | MER NERE                                      | ION.<br>61 MBALLIN | 6 BETWEEN                                      |                                         |
| CORRECTIVE ACTION-COMPLETE SEAL AT PORMAND OF THE FAIRING, ALUMINMA SMIELD TO COMER EN PERMANENT SPLICE, TRANSDUCER WIRING SLEVEL 6 WRAPPEC IN ALUMINMA FOIL, AND MICHROME WILL INC. FEEDBACK TRANSDUCERS, (REPORT EC-7-098) | CORRECTIVE ACTION-COMPLETE SEAL AT PORMED PORTION OF THE PAIRING, STEEL YLATE OWER OUTDOARD AND LAFTER AFT PORTION OF THE FAIRING, FEEDBACK TRANSDUEDS SOLDER,) HUG REPLACED WITH PERMIKENT SPLICE, TRANSDUER MILL NEW SEAL OF THE WENNIER FAIRING PORTION THROUGH CONDUIT, ALL WENNIER EMBINE AREA WIRING & BRAPPEE IN ALUMINAM FOIL, AND WICHOUSE WILL NEPLACE WIRING IN THE THO ENCITATION LEADS TO THE TWO WENLER ENSINE FEEDBACK TRANSDUKERS. (REPORT EC-7-096) | AIRING, STEEL YLATE<br>FAIRING, FEEDBACK T<br>NO ROUTED THROUGH O<br>BRING IN THE THO EX                                                    | OWER CUTS<br>RAMSDUCER<br>CHEVIT, AL | SARO AND<br>BOLDCRLD<br>L WCHIEG<br>EAGS TO T | COLOR AFT          | PORTION<br>ACED WITH<br>REA WIRTH<br>PHIER ENG |                                         |
| HYDRAULIC-A/B<br>WENJER SCLO-SINGLE OR DUA<br>L ACCUMULATOR                                                                                                                                                                  | ALV-AS-04-5088<br>ACTUATOR ASSEMBLY: BEAL                                                                                                                                                                                                                                                                                                                                                                                                                            | FAR<br>27-05312-003                                                                                                                         | <b>88</b> 018                        | PACTORY                                       | 769 LIGG           | WO LICHEL PACIFIC                              | ***                                     |
| FAILURE MODE-OUT OF TOLE MAS NOT DUPLICATED. HOMEN ERMIT LEAKAGE AND REDUCE                                                                                                                                                  | FAILURE MODE-OUT OF TOLERANCE, WERNIER BERNOWALWE ASSEDBLY WAS REJECTED FOR EXCESSING PITCH OWERSHOOT. THE FAILURE<br>WAS NOT DUPLICATED. HOWEVER OH DISASSEMBLY A GOUGED FONER-STAGE SPOOL-DAMPING ORIFICE O-RING WAS FOUND WHICH COULD P<br>EAHIT LEAKAGE AFT REDUCE DAMPING.                                                                                                                                                                                      | NAS NEJECTED FOR EX<br>AGE BFOOL-DAMPING O                                                                                                  | CESSIVE PI                           | TCs OVERS                                     | HOOT. THE          | FAILURE<br>H COULD P                           | •                                       |
| CORRECTIVE ACTION-CADILLAC 646E MAS MOTIFIED OF<br>ON CORRECT PROCEDUNES FOR REINSTALLATION OF THE<br>-ASSEMBLED.                                                                                                            | H-CADILLAC GAGE WAS NOTIFIED OF THID. VENDOR RE-INSTRUCTED ALL PRODUCTION AND INDPLCTION PERSONALL.<br>UNES FOR REINSTALLATION OF THE -010 O-RING IF THE SPOOL AND BLEEVE ASSENDLY ARE DISABBENGLED AND M                                                                                                                                                                                                                                                            | THIS. YENDOR RE-INSTRUCTED ALL PRODUCTION AND IMPLICATION PERSONAL.<br>-018 O-RIMS IF THE SPOOL AND BLEEVE ASSENDLY ARE DISABSENGLED AND RE | PRODUCTIO                            | M AND 1985                                    | P.CTION P          | ERBONEL<br>ED AND RE                           |                                         |
| HTDRAULIC-A/S MENIER SOLO-SINGLE OR DUA L ACCUMULATOR                                                                                                                                                                        | GBA4929<br>ACTUATOR ABBY, WERNIER                                                                                                                                                                                                                                                                                                                                                                                                                                    | UTP-ETT<br>ET-03318-005                                                                                                                     | 86100                                | y/ <b>\$</b>                                  | 760 <b>8</b> /c    |                                                | <b>113000</b>                           |
| Falume MODE-STRUCTUMAL. EARN<br>LOCAE CAUSING THE DISCREPANCY.                                                                                                                                                               | MCTURAL. EARATIC OPERATION OCCUMED BUE TO IMPROPER LOCK WINE INSTALLATION. MOUNTING BENEUN BECAME<br>Discrepancy.                                                                                                                                                                                                                                                                                                                                                    | INPROPER LOCA WINE                                                                                                                          | INSTALLATI                           | GN. NOUNT                                     | IN BCREV           | & BECAME                                       |                                         |

CORRECTIVE ACTION-LOCK MADMERS WILL BE ADDED TO NOUNTIMS BERENS TO PREVENT BACK OUT, PER ECP 3442.

CONVAIR BIVIBION

\*\*\*\*

ď

## CONVAIR BIVIBION

|                                                                                                                | BIFFICULTER ACVICH-MYDRAULIC BYSTEM-AIRBORNE                                                                                                                                                                                                                                                                                                                                                                                            | MAULIC BYSTEN-AIRBOR                                                              | *                                                                 |                                       |                                               |                                                                                       | 1            |
|----------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------|---------------------------------------|-----------------------------------------------|---------------------------------------------------------------------------------------|--------------|
| 8791EH<br>848-878TEH                                                                                           | TEST/REPORT HUNGER<br>FAILED COMPONENT NAME                                                                                                                                                                                                                                                                                                                                                                                             | BIF DATA BOUNCE<br>PART NUMBER                                                    | WCHICLE<br>BATE BIF                                               | 017E                                  | # 0<br># 0                                    | WENTELE BITE PRI VENDOR PART NO                                                       | ·            |
| HYDRAULIC-A/B<br>WENHER SCLO-BINGLE OR BUA<br>L ACCUMULATOR                                                    | LV-88-10-247-F<br>VERHIER BOLO ACCUMALATOR                                                                                                                                                                                                                                                                                                                                                                                              | FAR<br>87-06867-8                                                                 | ••••                                                              | FAC 108 V                             | 28                                            | 96401X<br>3057373                                                                     | :            |
| FAILURE MODE-LEAR INTERNOPEN).                                                                                 | FAILURE HODE-LEAR INTERNAL-HIDRAULIC PLUID LEAR AT PHEUMITIC END OF ACCUMULATOR. (PHEUMATIC END OF ACCUMULATOR WAS<br>Per).                                                                                                                                                                                                                                                                                                             | IC END OF ACCUMALATO                                                              |                                                                   | Wic Eig                               | ğ<br>B                                        | UMALATOR MAS                                                                          |              |
| CORRECTIVE ACTION-FAILUR                                                                                       | CORRECTIVE ACTION-FAILURE NOT CONTINUED- WINDOR AND PACTORY NOTIFIED OF PAILURE ANALTAIN-NO FURTHER ACTION-                                                                                                                                                                                                                                                                                                                             | T NOTIFIED OF PAILUR                                                              | C ABBATTO                                                         | TR2 08-                               | A HOM                                         | .110a.                                                                                | <del></del>  |
| HTDRALLIC-A/B 60453-0674/81-401-00-64 WERNIER SOLO-SIMELE OR DUA ACCUMALATOR CHARGE LINE L ACCUMALATOR         | 60463-0474/81-401-00-64<br>ACCUMAATOR CMARGE LINE                                                                                                                                                                                                                                                                                                                                                                                       | 712                                                                               | 3 3                                                               | ī:                                    | ð ž                                           | 2/ <b>9</b>                                                                           | 1            |
| FAILURE MODE-LEAK EXTERN<br>EMPERATURE, LATTER NOT MC<br>INDICATED BY BUSTAINER/WE                             | FAILURE MODE-LEAK EXTERNAL IN VERHIER BOLO ACCUMILATOR CHARGE CHARGE LINE<br>EMPERATURE, LATTER HOT MONITORED BUT FITS PATTERN OF BUCH FAILURES, CHARGE<br>INDICATED BY BUSTAINER/VERHIER HTDRAULIC PRESSURE TRAMBIENT.                                                                                                                                                                                                                 |                                                                                   | 26 745 J                                                          | 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 | ACCUM                                         | PROBABLY BUE TO HIGH ENGINE CONTARTHENT T<br>LINE LEAR AND LODS OF ACCUMULATOR CHANGE | <del></del>  |
| SYSTEM EFFECT-DEPLETION OF OLLOWING SECO. 1874. E. SECO.                                                       | SYSTEM EFFECT-DEMLETION OF 645 SUPPLY TO WERNIGH BOLD ACCUMALATOR. BUBBEAUERT PAILUME OF WEANIER MYDRAULIC SYSTEM F<br>ALOMING SECO (874.8 SECS).                                                                                                                                                                                                                                                                                       | MLATON. BUBBCOLENT                                                                | PAILURE OF                                                        | W. W. Cont. Co.                       | 100                                           | ILLIC BYBTEN F                                                                        |              |
| VERNICLE EFFECT-LOSS OF VERNICE EMEINES DURING WE RESULTING LOSS OF GUIDAN                                     | WEMICLE EFFECT-LOSS OF WEMICLE STABILITY CAUGED BY WERMIER WYDRALLIC STRIEM FAILURE TO SUPPLY WYDRALLIC CONTROL<br>Emmier emeines during Wermier solo Plase, s/v Prearm signal not sent sy cuidance because of Wemicle Instability<br>Aesuling Loss of Guidance system Lock, s/y bid not separate due to lack of Prearm signal.                                                                                                         | HYDRALLIC SYSTEM FA<br>LL HOT SENT SY CUIDAN<br>TE DUE TO LACK OF PR              | CE BECAUME                                                        |                                       | DRAIL CLE BI                                  | THE WENTER THE TABLETY AND                                                            | <del> </del> |
| CORECTIVE ACTION-NOW 1                                                                                         | CORRECTIVE ACTION-MOME TO D SERIES OPERATIONAL VEHICLES. CHARGE LINE CHANGES PROM ALUMINAM TO STRIMLESS STEEL ON SP<br>ACE PROGRAM VEHICLES AND VEHICLES IN OTHER PROGRAMS AS A RESULT OF PRIOR PAILURES OF THIS TYPE.                                                                                                                                                                                                                  | DUAGE LINE CHANGES P.                                                             | ES OF THE                                                         | AM TO BT                              | J WIV                                         | 18 STEEL ON 8P                                                                        |              |
| HTDRALLIC-A/B 60/A83-0107/01-501-00-65 VERNICR SOLO-SINGLE OR DUG ACCUMALATOR VERNIER-BOLD L ACCUMALATOR       | 60/483-0107/01-501-00-65<br>ACCUMAATON WENNIER-BOLD                                                                                                                                                                                                                                                                                                                                                                                     | P.1647<br>87-0898                                                                 | 75.<br>25.0<br>25.0<br>25.0<br>25.0<br>25.0<br>25.0<br>25.0<br>25 | 1                                     | 5 g                                           | 7E3 DEID1X<br>NO 3087973                                                              | •            |
| FAILURE MODE-FAIL TO OPE<br>VEANIER EMSINES DURING 1<br>MEINE START, DATA DOES MC<br>CCUMMARION CMARGE PRESSUM | FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TING, VERMIER-BOLD ACCUMLATCH (VBA) BIB MOT PROVIDE CONTROL PRESSURE TO<br>MENIER EMFIRES DURING VERMIER-BOLD PHAZE. PROBABLE CAUSE MAS LOSS OF VBA PRECHARME BETNEEN LAST STSTEM CHECK AND E<br>MEINE START, DATA DOES MOT SUBSTANTIATE SUPPOSITION OF A REVERBAL OF VBA CHARKE PRESSURE (1000 PSIS) AND SUSTAINER A<br>CCUMLATOR CHARGE PRESSURE (2800 PSIS) AS POSSIBLE CAUSE OF PROBLEM. | OLG ACCUMLATON (WAS<br>MAS LOSS OF WAS PREC<br>VESSAL OF WAS CHARGE<br>' PROBLEN. | MARKE RET                                                         | MOVIDE<br>EEN LAST<br>(1900 PS        | COUT # 10 10 10 10 10 10 10 10 10 10 10 10 10 | A, PRESSURE TO<br>IN CHECK AND E<br>ED BUSTALIER A                                    |              |

SYSTEM EFFECT-OPERATION DOES NOT START. AS RESULT OF LOSING CHARGE PRESSURE, YOU BID NOT SUPPLY CONTROL PRESSURE TO

VERNICA ENGINES.

MEMICLE EFFECT-LOSS OF VEHICLE STABILITY. LACK OF CONTROL PRESSURE DURING VERNIER-SOLO PRASE DID NOT PERHIT CORRECT ION OF ERICAS ACRECIENTIONS AT SECO. ERRORS DID NOT AFFECT MISSION.

COMMECTIVE ACTION-AMEA OF PAILUME MEMULTIMS IN LOSS OF VSA PMECHANGE WAS NOT ISOLATES. MOMENTA, LEALANE HISTORY OF SAUVE UNED IN CHANGE INSTANCE IN THE TO PERFORM 100-PER

CENT CHECKOUT OF SAVIES.

CONVAIR DIVISION

9981 WAT 81

|                                                                                                                                     | DIFFICUATIES REVIEW-HYDRAULIC SYSTEM-AIRSCRNE                                                                                                                                                                                                                                                                                                                                                        | RAULIC STRTEM-AIRBON                                               | ¥                                       |                   |            |                                                                     |              |
|-------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|-----------------------------------------|-------------------|------------|---------------------------------------------------------------------|--------------|
| 3757EN<br>848-8797EN                                                                                                                | TEST/REPORT NAT TR<br>PAILED COMPONENT NAME                                                                                                                                                                                                                                                                                                                                                          | DIF DATA BOURCE<br>PART NUMBER                                     | VEHICLE<br>DATE DIF                     | 017E<br>71ME 017  | # 0<br># 2 | VENDOR MANE<br>VENDOR PART NO                                       |              |
| HTDRAULIC-A/B<br>WERNIER SOLO-BINGLE OR DUA<br>L ACCUMULATOR                                                                        | AC-83-0007/22-810-813-75 CAPTIVE<br>1 VEHIER BOLO ACCUMULATOR 648 CHAR6 ET-85107-451<br>E LINE                                                                                                                                                                                                                                                                                                       | CAPTIVE<br>B RT-08107-461                                          | 716                                     | 2                 | 20         | 7E8 60/C                                                            |              |
| FAILURE MODE-STRUCTURAL.                                                                                                            | FAILURE MODE-BIRUCTURAL. POST TEST IMPPECTION MEVEALED A SMALL CRACK IN THE CHARGE LIME.                                                                                                                                                                                                                                                                                                             | MALL CRACK IN THE CH                                               | ARGE LINE                               |                   |            |                                                                     |              |
| BYSTEN EFFECT-NOME.                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                    |                                         |                   |            |                                                                     |              |
| VEHICLE EFFECT-NOME.                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                    |                                         |                   |            |                                                                     |              |
| CORRECTIVE ACTION-THE LI                                                                                                            | -THE LINE WAS REPLACED.                                                                                                                                                                                                                                                                                                                                                                              |                                                                    |                                         |                   |            | ;                                                                   |              |
| HYDRAULIC-A/B<br>WERNIER BOLO-SINGLE OR DUA<br>L'ACCIMILATOR                                                                        | AEGE-0730/SE-404-00-67<br>OR DUA TUBING-CHARGE LINE                                                                                                                                                                                                                                                                                                                                                  | <b>7.187</b>                                                       | 670<br>90000                            | 13                | 88         | × 9                                                                 | ******       |
| FAILURE MODE-STRUCTURAL. AT 1<br>1430 PSIA, AND THEN A RETURN T<br>F THE VSA CHARGE LINE CAUSED B<br>R DATA OBTAINED ON FLIGHT 4ED. | FAILURE MODE-STRUCTURAL. AT 108 SECOMOS Á BLIGHT MYDRAULIC PRESSURE DECREASE MAS POLLOMED BY A SUDDEN INCREASE TO S<br>1430 PSIA: AND THEN A RETURN TO STADILITY AT S.130 PSIA: THIS PRESSURE TRANSIENT IS BELIEVED TO INDICATE A RUFTURE O<br>F THE YSA CHARGE LINE CAUSED BY EXCESSIVE TEMPERATURES IN THE ENGINE COMPATHENT. THIS CONCLUSION IS BARED ON SIMILA<br>R DATA OBTAINED ON FLIGHT 42D. | PRESSURE DECREASE N<br>IS PRESSURE TRANSIEN<br>NE ENGINE COMPANYEN | ms Follow<br>IT IS BELLI<br>IT. THIS CO | D BY A ST         | 13 G       | INCREASE TO 3<br>TE A RUPTURE O<br>ABED ON BINILA                   |              |
| STATEM EFFECT-OFERATION                                                                                                             | SATION STOPS PREDMIURELY. HYDRAULIC PRESSURE WAS NOT SUPPLIED BURING VERNIER SCLO.                                                                                                                                                                                                                                                                                                                   | URE WAS NOT BUFFLIED                                               | Public 4                                | DENIES SO         | ġ          |                                                                     | ****         |
| VEHICLE EFFECT-INFROPER                                                                                                             | WENICLE EFFECT-INFROMER TRAJECTORY. PINAL YAN CORRECTIONS DURING WENNIER SOLD NEAR HOT EFFECTED.                                                                                                                                                                                                                                                                                                     | DURING VERNIER BOLD                                                | MEME ROY I                              | Wiche.            |            |                                                                     |              |
| CORRECTIVE ACTION-IN THE<br>MES. SERIES E AND F MISSI                                                                               | CORRECTIVE ACTION-IN THE PUTURE, BERIES & MISSILES WED AS SPACE BOOSTERS MILL MAYE INSMLATES ACCUMLATOR CHARGE LI<br>Es. Series e and P missiles Will incoponate staimles steel lines.                                                                                                                                                                                                               | SPACE SOCSTERS MILL<br>E. LINES.                                   | MAYE 318                                | ALATEB AC         |            | ATOR CHARGE LI                                                      |              |
| HTDRAULIC-4/8<br>VEHIER BCLO-BINGLE OR DUA<br>L'ACCUMULATOR                                                                         | A-84-10-132F<br>N VERHIER BYSTEM HYDRAULIC ACCUMUNT 27-08587-8<br>OR                                                                                                                                                                                                                                                                                                                                 | FAR<br>7 27-00507-8                                                | 476.28<br>476                           | ALTUB             | <b>5</b> 8 | VES PEACOCA<br>NO 10824-3                                           | •            |
| FAILURE MODE-LEAR INTERN<br>URB MOT APPARENT.                                                                                       | INTERNAL. GAS PRECNARG PRESSURE DROPPED 100 PSI IN A 12 NOM PERIOD. BOWCE AND CAUSE OF LEARANE                                                                                                                                                                                                                                                                                                       | 100 PSI IN A 12 HOM                                                | <b>Raig</b>                             | DOMCE AND         | 25         | <b>36 O' LEARAGE</b>                                                |              |
| CORRECTIVE ACTION—FAILUR<br>LINE TO THE UNIT MAS THE<br>UNITHER ACTION TAKEN.                                                       | CORRECTIVE ACTION-FAILURE NOT CONFIDED. IT MAS CONCLUDED THAT IT WAS POSSIBLE<br>LINE TO THE UNIT MAS THE CAUSE OF PAILURE AND THAT THIS WAS BLIMINAVED WHEN THE<br>URTHER ACTION TAKEN.                                                                                                                                                                                                             | THAT IT WAS POSSIBLE<br>BLIMINAYED WHEN THE                        | THAT A BE                               | ML LEAN<br>T UNIT | = 4        | THAT A SHALL LEAK IN THE ASSOCIATED REPLACEMENT WAS INSTALLED. NO F |              |
| HTDERULIC-A/B<br>Vanier Bolo-Bingle of Dua<br>L Accumulator                                                                         | 94-10-090-F<br>1 Verier 8010 accumantor                                                                                                                                                                                                                                                                                                                                                              | FAR<br>87-00607-3                                                  | 201119<br>61119                         | 20006             | <b>4</b> 9 | 3CH01X<br>3017073                                                   | <del> </del> |
| PAILURE MODE-EXTERNAL LE                                                                                                            | IRMAL LEAK-648 LEAKAGE AT THE PHEUMATIC BUB OF THE CTLINGER HOUSING.                                                                                                                                                                                                                                                                                                                                 | D OF THE CTLINDER HE                                               | 30 1 146.                               |                   |            |                                                                     |              |
|                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                    |                                         |                   |            |                                                                     |              |

GENERAL DYNAMICS CONVAIR BIVISION

• •

11 10H 1986

|                                                                              | DIFFICALTIES SEVIEW-NYDRANLIC SYSTEM-AIRBORNE                                                                                                                                       | AMIC STOTEM-AIRBOR                        | ¥                   |           |                                         |                                                                         |                                         |
|------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|---------------------|-----------|-----------------------------------------|-------------------------------------------------------------------------|-----------------------------------------|
| 87878<br>82878-408                                                           | TESTARPORT NUMBER<br>FAILES COMPOMENT NAME                                                                                                                                          | BIF DATA BOUNCE<br>PART NUMBER            | WENICLE<br>BATE BIF | 11 ME 010 | # E                                     | WENTELE SITE PRI TENCOR PART NO<br>BATE BIF TINE BIF OTH WINDOR PART NO |                                         |
|                                                                              |                                                                                                                                                                                     |                                           |                     |           |                                         |                                                                         | :                                       |
| CORRECTIVE ACTION-PAILUR                                                     | ON-FAILURE NOT CONFINED. WINDOW WAR NOTIFIED AND RESUESTED TO INFROME HIS S.C.                                                                                                      | D AND REQUESTED TO                        | INTROME I           | 10 0.6.   | ļ                                       |                                                                         |                                         |
| HYDRALLIC-A/B<br>WERNIER SOLO-BINGLE OR DUA<br>L ACCUMULATOR                 | 98-10-080<br>Verhier Bolo Accumalator                                                                                                                                               | FAR<br>87-04847-8                         | 964.93              | £78-13    | <b>5</b> 0                              | BC101X<br>36.57973                                                      | *************************************** |
| PAILURE MODE-INTERNAL LE                                                     | HTERMAL LEAR. 648 PRECHARGE LEARAGE.                                                                                                                                                |                                           |                     |           |                                         |                                                                         |                                         |
| CORRECTIVE ACTION-PAILUR                                                     | ON-FAILURE NOT CONTINUED.                                                                                                                                                           |                                           |                     |           |                                         |                                                                         |                                         |
| HTDRALLIC-A/B VERNIER SOLD-SINGLE OR DUR YAW ACTUATOR ASSEMBLY L ACCUMULATOR | WE-10-LGO<br>YAW ACTUATOR ASSIDIBLY                                                                                                                                                 | FAA<br>E7-6531E-605                       | 808<br>801210       | £         | <b>2</b> 8                              | IES INTERTATE<br>MO                                                     | 7                                       |
| FAILURE MODE-CONTANINATIO                                                    | FAILURE MOCE-CONTAHINATION-BUSPECTED OF CONTAINING ENCESSINE CONTANINATION.                                                                                                         | E CONTAMINATION.                          |                     |           |                                         |                                                                         |                                         |
| CORRECTIVE ACTION-MARE R                                                     | ION-MATE RIGID MEASURES TO PREVENT CONTABINATION MANE BEEN TAKEN.                                                                                                                   | IOH HAVE BEEN TAKEN                       | •                   |           |                                         |                                                                         |                                         |
| HYDRALLIC-A/B<br>MENIER SOLD-SINGLE OR DUA<br>L ACCUMATOR                    | AIC-27-116/PI-405-00-48<br>PREUMITC CHARGE LINE TO HTSRAULIC<br>ACCUMALATOR                                                                                                         | A1407                                     | ***                 | =8        | 88                                      | <b>∀</b>                                                                |                                         |
| PAILURE PODE-BENCTURAL.<br>RGE LINE TO THE VERNIER H                         | RUCTURAL, A HIGH TEMPERATURE ENVIRONENT IN THE THRUST SECTION RESULTED IN 1085 OF THE PREUMATIC CHA<br>Vernier hydraulic accumalator, and subservent bleed donn of the accumalator. | HE THRUST SECTION<br>IT BLEED DOWN OF THE | ACCUMALA            | 708.      | Ĭ                                       | PEUMITIC CHA                                                            |                                         |
| BYBIEN EFFECT-OPERATION                                                      | STREET EFFECT-OPERATION TOO LOW, MYDRALLIC PRESSURE WAS NOT AMAILABLE FOR MEMBER CONTROL. WHILE FFFET-LORD OF WENTER BOLD PARK.                                                     | AVAILABLE FOR VEAN HIROL MAS LINES. DAR   | its confi           | P. 80.0   | ₩.                                      |                                                                         |                                         |
| CORRECTIVE ACTION-NOME.                                                      |                                                                                                                                                                                     |                                           |                     |           |                                         |                                                                         |                                         |
| HTDRAILIC-A/B<br>MENIER BOLO-BINGLE OR DUA<br>L ACCUMULATOR                  | FTA8248/P2-8CO-02-08                                                                                                                                                                | CONFOALTE-B FACT                          | ¥ 8                 | 3         | 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 |                                                                         |                                         |

FAILURE MOCE-OUT OF SPECIFICATION OR TOLERANCE. MACH GROUND BUSTAINER/VERNIER MYBRAULIC PUMP WAS STOPPED AT SUSTAIN ER CUTOFF, PALSSUNE IN THE THO VERNIER SOLO ACCUMULATORS DROPPED FROM 8730 PSIA TO 1886 PSIA. ATAIRE EFFECT-OPERATION TOD LOW. IT MAS BELIEVED THAT THE PRESSURE DROP WAS TOD BHARP TO FURNISH SUFFICIENT PRESSUR SENERAL BYMANICS CONVAIR BIVISION

15 JUN 1966

DIFFICIA, TIES REVIEW-HYDRAULIC SYSTEM-AIRDANE

| STATEM<br>BUB-BYBTEM                                                           | TEST/REPORT NUMBER<br>PAILED COMPONENT NAME                                 | BIF LATA BOURCE WENICLE<br>PART NUMBER BATE BIF | WHICLE<br>BATE DIF | 817E<br>71ME DIT | * i i | WENTELE BITE PT. WINDOR NAME BATE BIF THE BIF OWN WENDOR PART NO | <b></b> |
|--------------------------------------------------------------------------------|-----------------------------------------------------------------------------|-------------------------------------------------|--------------------|------------------|-------|------------------------------------------------------------------|---------|
| E FOR THE VERNICA SOLO PERICO.                                                 | 18.                                                                         |                                                 |                    |                  | 1     |                                                                  | 12.0    |
| WENTCLE EFFECT-HOME.                                                           |                                                                             |                                                 |                    |                  |       |                                                                  |         |
| CORRECTIVE ACTION-UNKNOWN.                                                     |                                                                             |                                                 |                    |                  |       |                                                                  |         |
| MTDRAULIC-A/B WENIER SOLO-SIMELE OR DUA PITCH ACTUATOR ASSENSELY L ACCUMULATOR | 98-10-060<br>PITCH ACTUATOR ABBDBLY                                         | FAR<br>27-00311-0                               | 3 5                | 25               | ş 8   | VES INTERSTATE<br>NO                                             | :       |
| FAILURE MODE-CONTANINATIO                                                      | FAILURE MODE-CONTANIMATION-BUSPECTED OF CONTAINING ENCESSIVE CONTANIMATION. | WE CONTAMINATION.                               |                    |                  |       |                                                                  |         |
| CORRECTIVE ACTION-HORE MI                                                      | TON-HORE RIGID MEASURES TO PREVENT CONTAMINATION HAVE BEEN TAKEN.           | TION HAVE BEEN TAKE                             |                    |                  |       |                                                                  |         |

SCHERAL BYMANICS CONVAIR BIVISION

|   | ¥                                     |
|---|---------------------------------------|
|   | \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ |
|   | 76.6                                  |
|   |                                       |
| 1 |                                       |
|   |                                       |
|   |                                       |
|   |                                       |

|                                                                      | <del></del> | <br>            | <br> |  |
|----------------------------------------------------------------------|-------------|-----------------|------|--|
| WENTELE BITE PRI WINDOR MANE<br>BATE BIP TIME BIP OTH WENDOR PART NO |             |                 |      |  |
| 3 3                                                                  |             |                 |      |  |
| 8                                                                    |             |                 |      |  |
| 9 8                                                                  |             |                 |      |  |
| 3 5                                                                  |             |                 |      |  |
| 23                                                                   |             |                 |      |  |
| 20                                                                   |             |                 |      |  |
| 1 2 3                                                                |             |                 |      |  |
| Ex                                                                   | ĺ           |                 |      |  |
| LE                                                                   |             |                 |      |  |
| 4 =                                                                  |             |                 |      |  |
| 27                                                                   | i           |                 |      |  |
| ği                                                                   |             |                 |      |  |
|                                                                      |             |                 |      |  |
| BIF DATA SOUNCE<br>PART NUMBER                                       |             |                 |      |  |
| 35                                                                   |             |                 |      |  |
|                                                                      |             |                 |      |  |
| 3:                                                                   |             |                 |      |  |
| 3                                                                    |             |                 |      |  |
| •                                                                    | ·           |                 |      |  |
|                                                                      |             |                 |      |  |
|                                                                      |             |                 |      |  |
|                                                                      |             |                 |      |  |
| 21                                                                   |             |                 |      |  |
| 1                                                                    |             |                 |      |  |
| = X                                                                  |             |                 |      |  |
| TEST/REPORT NUMBER<br>PAILES CONFORMT MANE                           |             |                 |      |  |
| £ 8                                                                  |             |                 |      |  |
| 33                                                                   |             |                 |      |  |
| - 3                                                                  |             |                 |      |  |
|                                                                      |             |                 |      |  |
|                                                                      |             |                 |      |  |
|                                                                      |             |                 |      |  |
|                                                                      |             |                 |      |  |
|                                                                      |             |                 |      |  |
|                                                                      |             |                 |      |  |
| 55                                                                   |             |                 |      |  |
| 3737EH<br>818-8737EH                                                 |             |                 |      |  |
| - 3                                                                  |             |                 |      |  |
|                                                                      |             |                 |      |  |
|                                                                      |             |                 |      |  |
| 1                                                                    |             |                 |      |  |
|                                                                      |             | <br><del></del> | <br> |  |